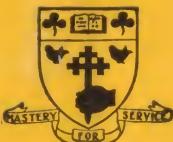


MACDONALD COLLEGE JOURNAL



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MARCH
1946

Farm · Home · School

Guarded Quality



"EXPORT"
Canada's Finest Cigarette



The Role of the Plant Breeder

The tangible recognition of one of Canada's plant breeders noted elsewhere in this issue again brings forcibly to our attention the contributions made by plant breeders both in this and other countries. Instances of their creations are numerous — varieties which have lifted yields to a more profitable level, which have overcome susceptibility to some destructive disease or insect, or which have provided strains to better fit them for the varied environmental conditions encountered.

Abroad, among the many examples that could be cited, the output of forage crop strains from that well-known station at Aberystwyth in Wales stands out. Under the able directions of Sir George Stapledon strains of practically all of the important grasses and clovers used in Britain have been produced giving them more specific adaptation and greater usefulness.

A classic breeding production which had its inception abroad but which is now being followed up intensively in the U.S. is the work with sugar beets. The famous "House of Vilmorin" in France, through its several generations, increased the sugar content of our sugar beets by some 10-12%. U.S. investigators, aided by modern genetic research, have intensified the study and have invoked controlled hybridity to provide greater vigor.

On this continent, no single endeavour in crop breeding has met with more spectacular results than the work with corn in the U.S. G. H. Shull in 1910 developed the basis for the production of double-cross hybrid corn. The names of those who have contributed their quota between 1910 and 1935 — when double-cross corn can be said to have become really first established — are legion. Suffice it to say that after years of almost fruitless effort to augment the yielding ability of varieties by mass selection, double-cross corn sorts, in repeated tests, have shown an increase of between fifteen and twenty percent in yield, besides possessing pro-

nounced disease resistance and strength of stalk. The importance of this accomplishment is realized when one recalls that the annual production of corn in the U.S. averages approximately three billion bushels. Incidentally the increased stalk strength has overcome, in considerable part, the depredations of the corn borer.

Canada's biggest single contribution in plant breeding has been in the bread wheats. The name of the late Dr. Chas. Saunders and Marquis wheat were famous not only in this country but in all wheat producing and consuming areas in the world. Marquis gave a great increase in quality for bread making purposes, coupled with a very fair yield, and on that basis quickly took over the North American field. It fell down, however, from a disease standpoint, as it was susceptible to the black stem rust. Subsequent breeding work has centered on the production of varieties which yield well, have good bread making qualities, and which are disease and/or insect resistant. The tremendous advances in genetics and cytology have contributed enormously in making it possible to turn out the present varieties Regent and Renown — also the American variety Thatcher — which go a long way to meet the specifications laid down.

Very locally, Macdonald has made its contribution with Dollard clover — hardier and more productive. Laurentian swedes, due to smoothness, quality and uniformity, have to a large extent captured the table-stock field. Several varieties of oats have found wide usefulness, but in the cereal realm the new Montcalm barley — high yielding, good malting quality along with the hitherto unattainable combination of smooth awns — for the moment at least has the limelight.

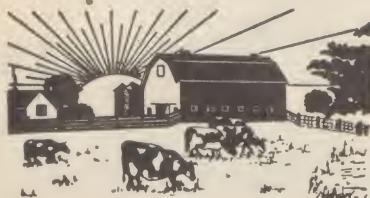
The Cover Picture

Dr. E. W. Crampton caught the Spring just as it was breaking in this brook in the College woods.

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AGRICULTURE

Articles on problems of the farm

Top-working to Secure Hardy Apple Trees

by A. N. Nussey



A 5-year old top-worked McIntosh.

IN the colder parts of Canada, which includes the Province of Quebec, hardiness or ability to withstand cold is essential in an apple tree. Some of our commercial varieties are fairly hardy while others are not. Occasionally, due to unfavourable environmental conditions, winter injury of one type or another will result in a heavy loss of trees. Among the various types of injury which result in a heavy loss of trees in this Province are trunk injury, crotch injury, bark splitting and sunscald, all of which affect the main framework of the tree. After the severe winter of 1933-34 very heavy casualties were caused throughout the province, especially in the two varieties McIntosh and Fameuse. At Macdonald College, half the standard McIntosh trees died as a result of trunk injury and crotch injury.

Top-working has long been overlooked by the fruit growers as a possible solution to this winter injury problem. Top-working simply means that the trees are twice budded or grafted, that is, an intermediate framework is inserted between the original rootstock and the top-worked variety.

Extensive experimental work has been used in an effort to develop hardy varieties which could be used as intermediates to be top-worked to less hardy commercial varieties. Among the intermediate types now recommended for this purpose are such varieties as Hibernal, Virginia Crab and Antonovka, any one of which is resistant to most types of winter injury experienced in this province. The commercial varieties, if they are reasonably hardy, when top-worked to these hardy trees will come through a cold winter in better condition than on their own trunk and scaffold limbs. It is not uncommon in Quebec to lose a McIntosh tree simply because the trunk or crotch injury in the region where the main scaffold limbs join the trunk is so severe that the tree is injured beyond repair. A typical top-worked tree of McIntosh could be made up having a Hibernal intermediate growing on a hardy Siberian Crab

rootstock and having its scaffold limbs top-worked to McIntosh when it is three or four years old.

The purposes of top-working are largely twofold. In the first place, as has already been mentioned, it is possible to develop a tree with a hardy rootstock, a hardy trunk and hardy scaffold limbs thus avoiding winter injury which would normally ruin a standard tree of less hardy variety. Secondly, an intermediate such as Hibernal produces right angled crotches which are mechanically stronger than those produced by many of our standard varieties. It is a well known fact that certain commercial varieties develop acute angled crotches, which result in bark inclusions, which cause the main scaffold limbs to break down when heavily laden with fruit. It is obvious that if an intermediate like Hibernal is used which develops a strong frame-work it will be possible to develop a tree that is more capable of carrying its crop without breakage of limbs.

Top-working can be readily accomplished by purchasing one- or two-year-old trees of a hardy variety such as Hibernal which has been propagated on Siberian Crab rootstock. The trees are then planted in their permanent orchard position and trained in the ordinary modified central leader method. As soon as the main scaffold limbs are large enough they are top-worked (by budding or grafting at a distance of 18 to 24 inches from the main trunk) to any less hardy commercial variety such as McIntosh. In budding, buds from the current season's growth of a commercial variety are placed in the scaffold limbs of the intermediate hardy variety about 18 inches from the main trunk sometime between July 15th and Sept. 1st. The method of budding is the same as that followed when budding rootstocks. This bud remains dormant for the remainder of the season and begins growth the following spring. As soon as growth in the bud begins all wood of the hardy intermediate beyond the bud is removed and from this point outward all new growth will be of the commercial variety. Grafting is done in the spring of the year just as growth begins. The scaffold limbs of the intermediates are cut off about 18 inches from the main trunk and dormant scions of the desired variety are grafted into the end of the remaining part of the scaffold limb, using the ordinary cleft graft method. Both methods can be used on an individual tree and in this way the procedure of top-working can be speeded up; if the bud in a scaffold limb fails to take then

(Continued on page 25)

Hang Onto Your Heritage



To produce a lamb that is a winner takes more than good feed and the best care you can give it. It must be a good lamb to begin with, born that way from the blood lines which it inherits.

You will find it the same with farm machinery. Good steel and careful workmanship are not enough. The best farm machines have a heritage, too. Their heritage comes from companies with long experience and a record for having served farmers well.

American farmers have the best machinery and the best living in the world because America has the richest heritage of freedom. On the farm and in the factory, people are free to choose what they will buy, what they will produce, what methods they will follow. This system rewards them for doing well, encourages them to do better. As you hang onto your heritage of freedom, you win the right to share in its rewards.
J. I. Case Co., Toronto, Ont.



New Machines for the new farm-ways will bear one of the oldest trademarks, the Case eagle. Through all the swift advance of American farming, it has been the sign of quality. It means machines with ENDURANCE that sees things through in troubled times, keeps farming costs down at all times. Farming fashions will change, but endurance in machinery will stay in style.

A Venture in the Sheep Business

by P. Devaux



The Devaux homestead.

MANY people thought we were foolish to keep sheep on a large scale. There was no money in it, they said. However, we kept thinking about it, and thoughts come fast on a hot summer day, with hay drying faster than it can be hauled in, the weather man promising a change and a long line of dairy cows to milk, with practically no help. Yes, the farmer has his worries: food is needed but two hands can do only so much. Perhaps there was another way. Sheep don't require much labour; they give you a lamb and a half on the average, the wool should pay for their keep and in any case, lamb is selling at a good price. It seemed reasonable and so we ventured into the sheep business.

Not many realize the problems and pitfalls in a new undertaking of this kind. Of course we were not entirely green, having maintained a flock of at least twenty-five grade Oxford ewes and a purebred ram for a number of years, but there were many questions confronting us. Should it be grades or purebreds? What breed or grade would be best? What time of the year should they be bred and what accommodation would be necessary or available? Where would we get the sheep? These were all practical questions of immediate importance.

We decided on Oxford grades. We knew the Oxfords and we were afraid to jump too fast into the highly specialized purebred business. That fall when we went out to buy our sheep, we hit our first snag; good ewes in any numbers seemed impossible to buy in Eastern Ontario. However, after a lot of looking around we managed to buy two small flocks. This raised our sheep population to seventy. The next spring we were going to have early lambs. Get a ninety pound lamb by early August, we reasoned, the price is way up then. So we bred the ewes early and had the lambs come early — too early. The first lamb was born on the 25th of February. It was a cold spring that year and many of the little fellows died. We saved only one lamb from each ewe. It wasn't only the financial loss we felt, it was the heartbreak of going to the shed on a frosty morning to see a big pair of twin lambs lying frozen on the straw.

We housed the sheep in our regular sheep shed and a large barn floor that spring. This barn floor under normal circumstances might have proved satisfactory but for early lambs it was too cold and drafty.

However, all these misfortunes paid off in experience. We learned two most important facts: first, that early

lambs require a lot of facilities and more attention; second, that with a large flock it is best to have only a few ewes lambing early.

That summer we had still more bad luck, or perhaps I should say, more losses through lack of knowledge. First, the ewes broke into a field of green oats and several died of bloat. Then what we had been warned against, happened — a dog killed six of our best sheep. My father went out one morning to see the pasture spotted with bloody wool, the flock huddled together around the gate and six ewes lying about, their legs sticking up into the sky. We were almost ready to quit.

In the fall, however, we felt better. We sold our lambs and in spite of everything made some money. So we got ourselves more grades and also a few more purebred Oxford Downs. We adapted another shed for sheep and waited for spring with our fingers crossed.

That winter we decided to try the Dorset Horn breed. Perhaps they would be the best sheep to get early lambs from. We bought three bred purebred Dorset Horn ewes. Unfortunately one was in very poor condition and died but the other two had such lovely lambs that we decided to buy more.

The next year was very much more successful. The lambs came later and we saved practically all of them. We overcame the dog problem by corralling the flock every night. We had, and still have, lots to learn but that first year taught us our most costly and most valuable lesson.

We are in a very different position to-day. We have expanded considerably and while we know more, our position is still somewhat vulnerable. The small flock of purebred Oxford Downs we started with now consists of twenty-six modern type ewes, and the first prize ram at the Saskatoon fair. This ram was an outstanding individual at the show. He is the low set type and has a wonderful fleece. We expect his lambs to be the profitable kind that most farmers are after. In fact, the whole flock is quite pleasing and should stand up well in competition with Eastern Canadian flocks.

However, we have not given up hope of raising winter lambs to round out our enterprise and we are hoping to establish an equally good Dorset Horn flock of sheep. Dorset Horns are lovely sheep, being of medium size, quiet, not excitable and easy to handle. They are quite prolific and breed at almost any time of the year; in fact,

(Continued on page 7)





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Basi-Cop* (Tri-basic copper sulphate) — Now introduced for the first time in Canada, Basi-Cop is a neutral insoluble copper compound containing twice as much copper as ordinary copper sulphate or bluestone and consequently is more economical and effective. An ideal spray material for control of fungus diseases of potatoes, sour cherries, grapes, tomatoes, celery, etc. Mixes well with Arsenate of Lead, Calcium Arsenate; dormant and summer oil emulsions. "Green Cross" Basi-Cop is also available as a dust.

Daylite* Dust — Prepared with Tri-Basic Copper Sulphate as the active ingredient, Daylite Dust contains 7% metallic copper. Its big advantage lies in the fact that it can be applied any time during the day as it does not require the action of dew to form copper hydrate. A highly effective dust for tomatoes, pumpkins, cucumbers, potatoes, melons, sugar beets and squash to control fungus diseases. Also available with 5% arsenic for control of chewing insects.

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Oil Type Stop-Drop*—A modern oil type hormone spray specially developed to prevent pre-harvest drop of apples and pears. Extensive field tests have conclusively proved that oil emulsion greatly increases the effectiveness of hormone sprays and this "Green Cross" product is definitely superior to old solvent base type sprays.

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Spralastic* (Spreader-Sticker) — This improved Neutral Liquid Spreader and Sticker is used with Wettable Sulphurs and Lead Arsenates to produce a highly effective film type coverage on fruit. Spralastic should be used at the rate of $1\frac{1}{4}$ pints per 100 gallons of water in the calyx and first two cover sprays but not later than the second cover spray.

Mulsoid Micronised* Wettable Sulphur

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The Rôle of Calfhood Vaccination in the Control of Bang's Disease

by W. E. Swales*

BANG'S DISEASE or contagious abortion of cattle is one of the most important diseases of livestock and is one of the great handicaps to the operation of dairy farms; in addition, it constitutes a public health problem.

Many methods of prevention have been tried; isolation of herds and very careful selection of new stock have often been successful. However, in recent years the use of living vaccines has come into widespread use. Veterinary scientists have for many years worked with various types of vaccines, but most of them have proved disappointing. Drs. Buck and Cotton of the Pathological Division, U.S. Bureau of Animal Industry, experimented with the vaccination of calves, using three different cultures of the organism *Brucella abortus*. They eventually found that one culture, which was known as Strain 19, possessed a certain degree of virulence and was satisfactory as a living vaccine in that it stimulated a degree of resistance to the disease and yet failed to become established (or colonized) permanently in the vaccinated animal. In December, 1940, a programme of vaccination with this strain was given official endorsement in the United States by Dr. John R. Mohler, then Chief of the Bureau. Immediately after the announcement of the work of Drs. Buck and Cotton a series of experiments was conducted by Drs. Mitchell and Moore of the Dominion Division of Animal Pathology in this country. This Canadian work largely endorsed the findings of the American workers, but in addition it was demonstrated that the organism did not cause abortion when adult pregnant animals were placed in contact with vaccinated calves. It was also demonstrated in this work that calves had to pass through a low-grade infection, as evidenced by a positive blood test (agglutination reaction), if resistance was to be stimulated.

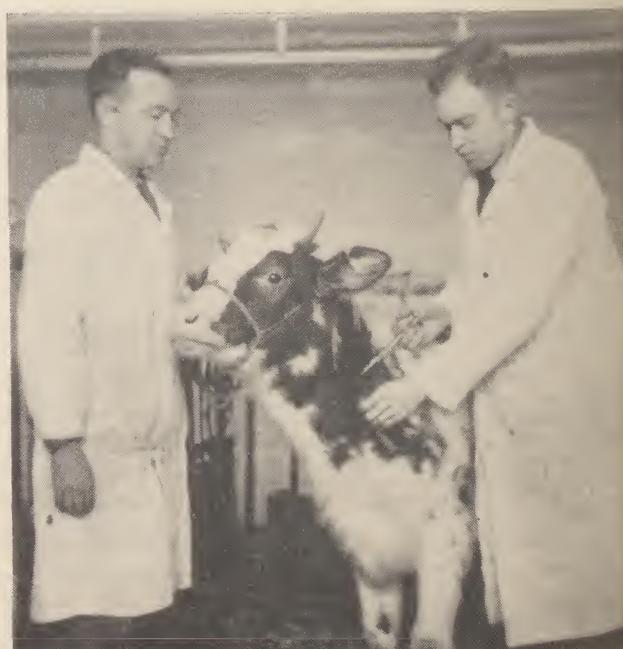
The vaccine, as employed at present, is prepared from the original "Strain 19" under Government supervision and can be used only by veterinarians who are holders of special permits from the Health of Animals Division. The temporary infection which it produces when it is injected into calves can, in most cases, be detected for several months by the blood test. Only calves between the ages of four and eight months are vaccinated and in the great majority of cases their blood is negative again between five and eight months later. A few will remain positive longer and somewhat less than one per cent will continue to react. However, it has been reliably established that the vaccine does not cause abortions in the heifer's later life.

Owners of dairy cattle have always had the threat of severe losses from Bang's Disease hanging over their heads and it is natural that the development of the new vaccine

for calves was received with enthusiasm. On the whole, the programme is working well and many herds free of the disease have been developed from badly infected ones by bringing along vaccinated heifers gradually to replace the old reactors. However, over-enthusiasm has resulted in some owners believing that the vaccine is the sole answer to Bang's Disease control; all other methods have, in some cases, been discarded and unfortunate experiences have been suffered.

Vaccination is not enough

We feel that owners should be reminded that the job of preventing the disease is not over and in fact has hardly begun when their veterinarian has vaccinated the calves. What has been accomplished is the establishment of a degree of resistance to the disease which will last in the majority of cases for two or more freshenings. Thus the first and second calf heifer which is ordinarily susceptible to contagious abortion, is protected. However, if new stock is brought into the herd, and with it a virulent organism, even animals that were vaccinated as calves, but which are now three or more years of age, may become infected and abortions may occur. Thus the owner of a herd in which a programme of calfhood vaccination is being conducted should not discard other precautions. He should have his veterinarian examine and test new stock and under no circumstances should animals with positive blood tests be accepted. Perhaps the seller may attempt to explain the positive reaction by saying that the calf was vaccinated but



Vaccinating a calf.

*Division of Animal Pathology, Dominion Department of Agriculture and Department of Animal Pathology, Macdonald College.

did not become negative; the buyer should remember that less than one per cent fit into that picture and should not take a chance. Equally dangerous is the explanation that the animal was vaccinated as an adult and hence will not return to a negative status. There is no way, except by a complicated laboratory procedure, to know if a positive reaction is due to the harmless Strain 19 or to a dangerous "field" organism, so once again no chance should be taken. In any event the vaccination of adult cattle has no official endorsement and if an owner arranged to have it done in spite of restrictions it means his herd was in real trouble at the time from a bad infection and hence any reacting animal from his premises should, when sold, go only to the abattoir.

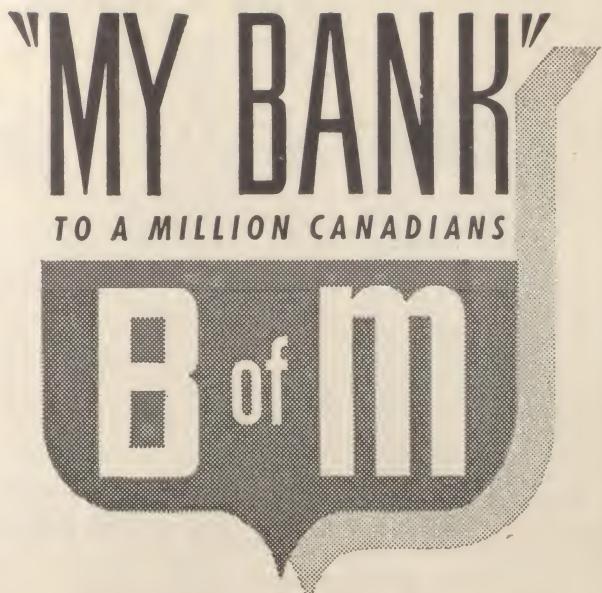
The above is only a warning to retain logical precautions and not to rely on vaccination to make the herd permanently resistant to any infection that might be introduced. Owners should, by all means, adopt a programme of calfhood vaccination and keep good records. The veterinarian will gladly adopt a system of visiting the premises at suitable intervals so that the calves will be inoculated not younger than four months and not older than eight, and will supply certificates of vaccination for each animal. He will also take blood samples three or more weeks after vaccination in order to be sure he has used a live preparation of the vaccine and hence produced adequate resistance.

While vaccinated herds are not permanently safe from a virulent form of Bang's disease, there will generally be a sufficient degree of resistance in many animals that will prevent a devastating storm of abortion. Thus a programme of sanitation, care in purchasing new stock and calfhood vaccination is a valuable safeguard against disaster. However, it must be emphasized that *vaccination alone will never eradicate Bang's Disease from cattle*, but if it is used as a measure supplementary to other methods of control, it may assist greatly in reducing economic loss.

SHEEP . . . (Continued from page 4)

we have planned to have our lambs come in September and October. At the present time we have made arrangements to import a Dorset ram from Great Britain and hope through this ram to build a flock of outstanding merit.

Last September we were fortunate in getting some additional land and on this property we have placed a carload (200) of Western ewes. These sheep are grade Hampshire and Suffolk ewes. They arrived in rather poor condition but have responded in a remarkable way to the feed and climatic conditions of the East. Our pioneering experience is therefore still continuing. Our neighbours still cling to their opinions that other lines are more profitable. Perhaps they are right, but under present circumstances our financial returns have been satisfactory and we have avoided many headaches with labour and management problems.



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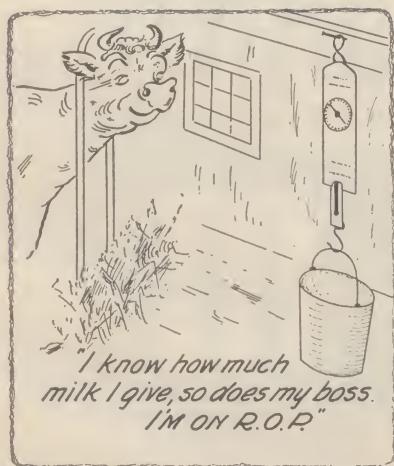
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Montreal

The Coming R.O.P. Changes

Discussed by A. R. Ness



A TOPIC that created intense interest and valuable discussion at the annual meeting of each of the different pure bred dairy breed associations, was the proposed changes in the Record of Performance or the R.O.P. Previous to these annual gatherings, a Committee, known as the Joint Dairy Breeds Committee which as the

name implies is a Committee with representation from all of the dairy breeds, had met with representatives of the Federal Department of Agriculture. The changes, therefore, had been considered and well discussed in an authoritative way and as a matter of fact, quite well agreed upon by this authoritative representation. There remained then the matter of placing the suggested changes before the general membership of each breed association. When this was done some lively and extremely beneficial discussion took place, the end result of which was that each breed association in annual meeting accepted the changes in principle and delegated the responsibility of some of the debatable details to the incoming executives, the Joint Dairy Breeds Committee and the Federal Department of Agriculture.

All animals go on test

The most important and probably the most significant change in the regulations is the requirement that in any herd on the R.O.P. system, except for a few insignificant exceptions, all milking females in the herd be entered on test and remain on test. Upon this particular point the members of the different breed associations were unanimous. There did appear to be some difference of opinion as to whether the new set up should be given the official name of a "herd test" and have calculated an annual herd production average of milk and butter fat for each herd.

The significant reason for requiring that all cows in the herd be tested is not only so as to have a greater number of cows tested each year but more especially is it significant because it will mean that as the daughters of our breeding bulls come into the milking herd, they will all automatically go on test. Heretofore it has been possible to put on test only a few selected daughters of our herd sires. The daughters not chosen or those that were chosen and had failed to qualify remained in obscurity. Information on a few daughters is valuable but at best is incomplete. It

might conceivably constitute distorted evidence with which to try to measure or assess the power of a sire's ability to transmit dairy characteristics to his progeny. A more complete set of evidence should be available to make possible a more accurate appraisal of the breeding worth of a sire, when the daughters are all tested for milk and butter fat production. The herd sire still remains the most direct way at the breeders disposal through which to effect changes and since over one-third of the animals removed annually from dairy herds are discarded because of low production, any move that can be made to provide better and more complete evidence with which to select better breeding sires, should be made posthaste.

Inspection visits

During the war years it has been almost impossible to replace the loss of a number of R.O.P. inspectors, with the result that the number of inspection visits were, in the course of a year, too few for best results. In order to secure inspection visits more often, it was recommended that a twenty-four hour instead of a forty-eight hour inspection period be adopted and thus provide for a greater number of inspection visits or tests per year. This change, as a matter of fact, is at present in force. There is every probability under normal conditions that the twenty-four hour test period will be just as effective as the forty-eight hour period. The objective eventually is to be able to provide for one test per month.

Daily milk weights

Certain groups of breeders, particularly those who are very close to the milking operations in their own stable, claim that they would put more of their cows on test or even test their whole herd if it were not for the work of weighing milk daily and having to transfer the daily weights to monthly sheets to be forwarded to Ottawa. The herd test in at least two other countries is conducted on the basis of estimating the monthly production of a cow from the weights taken at the time of monthly inspections. This method appears to be giving satisfaction on a herd test basis. Certain groups of breeders would like to see such a scheme included in a proposed plan for the R.O.P. On the other hand, other groups of breeders feel that such a plan would not be a sufficiently accurate or authentic method of determining the annual production of a cow. The proposal submitted was actually somewhat of a compromise and it was that daily milk weights be required and the original barn sheets be kept available until the completion of the lactation but that the daily weights need not be forwarded to Ottawa.

Provision was made for such matters as adequate surprise or check tests which together with a number of other details about which there is little likelihood of any difference of opinion. There was proposed, however, a change

in the annual herd fee from five to ten dollars. Naturally there was some objection to this extra cost but since even the larger annual fee represents such a small proportion of the total cost, most of which is born by the Federal Department of Agriculture, it is to be hoped that this will not become an issue.

Advanced Record

In order to provide a somewhat stricter supervision for a number of cows making large records, some of which are being milked three and others four times a day, a set up was proposed to be known by the name of "Advanced Record". To be eligible for this test, cows are required to be in herds that are on test for milk and butter fat. The owner makes application and when accepted, agrees to weigh the milk daily and submit monthly and yearly reports to Ottawa as is now required in the R.O.P. A preliminary milking will be required at the commencement of each twenty-four hour inspection visit. This point created considerable discussion and some breeders expressed themselves quite definitely as in favour of retaining the forty-eight hour inspection visit at least in the case of the Advanced Record. This question will be discussed further in Committee.

There are, as will be seen, certain details in connection with the proposed changes in the present R.O.P. that will receive more discussion in Committee. The main objective, that of having all milking cows in the herd placed on test rather than a chosen few, was unanimously accepted. It should not be forgotten in all this discussion that the present R.O.P. system has worked extremely well and has been of great value to the breeders of dairy cattle in Canada. Its value, however, can be extended and its good influence expanded, and since the suggested alterations in the rules of our present method of testing for milk and butter fat are evolutionary rather than revolutionary, there should be little difficulty in the eventual final draft of the operating details.



Fair Acres Marcellus — 277089 —

At \$4000 this outstanding young herd sire topped the recent consignment sale held at the farm of P. F. Law, Weston, Ont. He was bred by Cyril H. Mumford, Hampton, Ont., and comes to the fine Shorthorn herd of Mr. H. B. Norris, Hudson Heights, P.Q.

KOLOSPRAY

Kolospray is a semi-colloidal, wettable sulphur. It contains 81% active sulphur and carries its own spreading and adhesive agent — bentonite. The sulphur particle size is micro-fine. These qualities are great helps in providing freedom from foliage causticity and preventing fruit russetting.



Niagara Brand products are distributed in the province of Quebec by La Coopérative Féderale de Québec.

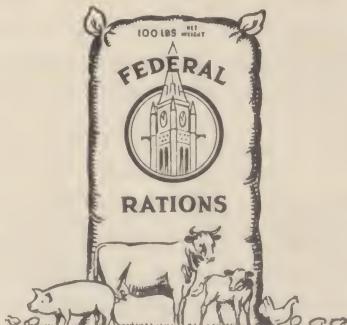
KOLODUST

It is a wise precaution to be able to dust your trees when rain interrupts spraying. Kolodust is bentonite-sulphur in dust form.

NIAGARA BRAND SPRAY CO. LIMITED

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CO-OPERATION AND MARKETING

A page of interest to members of farmers' co-operatives

Co-operative Federee Reaches New High



Dr. L. Kofod

Over 100 English-speaking co-operators were among the crowd of members and delegates to the 24th Annual meeting of the Fédérée held in Montreal on February 28th and March 1st. Dr. Kofod's address was on the programme of the special session along with talks by heads of departments of the Fédérée and the president.

Illustrating his words with coloured pictures of co-operatives all over the United States and Canada and showing the dependence of country on town, the lecturer said in part, "We are learning the technique of working together slowly. Co-operation was slow in coming to North America but now it is making great strides. . . . Co-operation is not a panacea for all the ills of the world but if we want the new world to come we must develop all kinds of co-operatives."

J. A. Pinsonneault, president, in his address to the main assembly, told of the further development of the Fédérée in 1945. A total volume of business amounting to \$39,150,000 had been done. \$282,342.13 had been paid in patronage dividends and an additional 45 co-operatives had affiliated with the organization — bringing the number of member societies up to 436.

He referred to several serious problems that confront the Fédérée in this post-war period. These include the relations between employers and employees; pensions; and the recognition of a common interest between workers in industry and agriculture.

Addressing the English-speaking section Mr. Pinsonneault expressed his appreciation of their increasing number. "The Co-operative is open to people of goodwill every-

"Co-operation has been forging ahead during the War. It is not a depression movement any more", said Dr. L. Kofod of New York in the course of a brilliant address to the English-speaking section of the Coopérative Fédérée.

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where in the world", he said, "and true co-operators unite."

Speakers at the annual banquet included R. Alex Sim, of Macdonald College, M. Maurice Colombain of the International Labour Office and M. J. R. Ascoli, head of the export department of the Coopérative Fédérée.

Half the Families in Co-ops

"The British co-operative movement has now attained a numerical strength which includes half the families of the country," the Co-operative News declares in summarizing statistics for 1944 compiled by the Co-operative Union.

During 1944, the Centenary year of the co-operative movement, the membership of retail co-operatives reached a total of 9,225,240, a net increase for the year of 143,022. Since the majority of the memberships in the co-operatives are held by heads of families, this membership includes more than one-half of the consumers in Great Britain.

Seven local co-operatives have more than 100,000 members each. The London Co-operative Society leads the list with 832,670 members. The Royal Arsenal Co-operative Society, also serving a section of London not served by the London Society, has a membership of 330,235, so the number of co-op members in greater London is well over one million.

Trade increases during the hundredth year of the co-ops also were very encouraging. Business of the retail co-operatives totaled £352,311,277 an increase of £20,737,154. (Translated into dollars the totals would be approximately \$1,409,999,999 with an increase for the year of more than eighty million dollars). "Most of this increase, in fact, represents volume increase, and not much of it can be attributed to price changes or increased taxation," the Co-operative News declares.

On September 30 the London Co-operative Society will complete its first 25 years of existence. The organization was formed by the amalgamation of several smaller co-ops at that time. In its fiscal year just closing the society will do a business estimated at £19,000,000 or nearly eighty million dollars. The savings to members during the year will be approximately one million pounds or four million dollars.

—*Co-op. News.*

MARKET COMMENTS

All live stock prices, with the exception of hogs, advanced in price during the month. Hogs declined during the month. This was not due to heavy runs as the output for the first 7 weeks of 1946 was 37 per cent below that of the corresponding period of the previous year. Apparently, in this particular case, other considerations than supply influence price.

Producers at recent annual meetings suggested one method of promoting expansion in both these lines. An increase of 4 cents per pound in butter was requested for 1946. Another suggestion was for an upward revision of the price of hogs. There the matter rests.

Farmers also pointed out that not enough publicity has been given to the fact that were it not for subsidies and bonuses consumers generally would be now paying 8 cents per pound more for butter, 2 cents per loaf more for bread, and 3½ cents more per quart of milk in winter, and 3 cents per quart in summer. The importance of the factor of subsidies in prices of farm products is being more clearly realized.

As pointed out so frequently in this column, when prices are regulated the volume provided becomes the more important market news. The present butter position illustrates this. Though the quantity is restricted, the price to the consumer remains low. So remember the money it is possible to save on this one item. In the meantime, the number of dairy cows exported to the United States from January 1st to February 21, 1946 was 5,076, as compared with 3,271 during the similar period last year. Butter is even more scarce in the United States than here, so their need is apparently greater than ours. This is indicated by the price in the two countries. It is rather hard to be certain of *ample supplies and low prices* at one and the same time.

TREND OF PRICES

| | 1945 Feb. | 1946 Jan. | 1946 Feb. |
|--|--------------|--------------|--------------|
| LIVE STOCK: | | | |
| Steers, good, per cwt..... | 12.28 | 12.20 | 12.95 |
| Cows, good, per cwt..... | 8.90 | 9.05 | 9.60 |
| Cows, Common, per cwt..... | 6.67 | 7.20 | 7.65 |
| Canners and Cutters, per cwt. | 5.50 | 5.90 | 6.60 |
| Veal, good and choice, per cwt. | 15.80 | 15.20 | 16.50 |
| Veal, common, per cwt. | 14.48 | 12.05 | 13.25 |
| Lambs, good, per cwt..... | 12.50 | 13.05 | |
| Lambs, common, per cwt.... | 9.20 | 10.58 | 12.45 |
| Bacon hogs, B1, dressed per cwt. | 17.73 | 19.10 | 19.25 |
| ANIMAL PRODUCTS: | | | |
| Butter, per lb. | 0.35 | 0.36 | 0.36 |
| Cheese, per lb. | 0.21 | 0.22 | 0.22 |
| Eggs, Grade A, large, per dozen | 0.35½ | 0.35 | 0.36 |
| Chicken, live, 5 lbs. plus, per lb. | 0.28½ | 0.28 | 0.29 |
| Chicken, dressed, Milk Fed, A, per lb. | 0.36 | 0.35 | 0.36 |
| FRUIT AND VEGETABLES: | | | |
| Apples, B.C. McIntosh, Extra Fancy, per box.... | 3.25-3.75 | 3.85 | 3.95 |
| Potatoes, Quebec No. 1, per 75 lb. bag | 1.60-1.75 | 1.90 | 1.90 |
| FEED: | | | |
| Bran, per ton | 29.00 | 29.00 | 29.00 |



The duck might well envy feet that are dry, warm and comfortable in MINER farm boots.

The famous MINER Vacuum Pressure Cure firmly welds boots together . . . guards against breaks and leaks . . . toughens rubber to stand the scuffing of farm wear. Surfaces are evenly flooded in process by a protective film for lasting gloss, resistance to farm acids and the drying action of the air. And built on skilfully designed lasts, MINER BOOTS are a comfort to feet that are on the go from dawn to dusk.

Miner Farm Boots and Lumbermen's are available for men and women and the girls and boys.

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Manufacturers of Rubber and Canvas Footwear, Rubber Clothing and Gloves, Rubber Heels, Soles and Soling. Quarter and Sock Linings, Proofers of Cloth and Wholesalers of Leather Footwear.

Our Apple Orchards —

Present Condition and Recommended Treatment

by D. S. Blair

ABNORMAL weather conditions caused serious damage to eastern Canada apple orchards in 1945. High temperatures in late March and early April forced the trees to break bud almost four weeks ahead of normal. The premature buds were hit in mid-April by heavy frosts that killed the blossoms and injured the primary leaves. Cool, rainy weather during bloom prevented bee activity and pollen germination and a poor set of fruit resulted. Above average rainfall before and during bloom caused one of the worst outbreaks of scab ever experienced in eastern orchards.

Spraying was most difficult due to the constant rains, prolonged blooming period and tender foliage. With these trying conditions to face up to and realizing that all hope for a crop had vanished in certain orchards a number of growers threw up the sponge and discontinued spraying operations for the season. This was a fatal mistake; the wet weather continued and the scab reached epidemic proportions, causing serious foliage injury. Those orchardists who religiously stuck to the spray schedule, as far as it was humanly possible, were able to keep the foliage reasonably free of scab throughout the season.

The well sprayed orchards performed in a more or less normal manner during the growing season and on the whole went into the winter in excellent condition. The light crop in 1945 stimulated fruit bud formation in mid summer and these orchards are well supplied with fruit buds and there is every prospect of a heavy bloom in the spring. In those orchards where apple scab gained the upper hand the picture is quite different. By early summer the trees in these orchards were partially, and in a few cases completely, defoliated and remained pretty much in that condition throughout the growing season. Due to lack of foliage during the growing period these trees were unable to manufacture a normal supply of carbohydrates. This is a very precarious situation as it is the carbohydrate supply that the tree depends on most for its resistance to winter injury. As to how these trees will winter is anybody's guess. Should the weather be most favourable the trees in all probability will come through free of serious injury. Quite aside from how they survive the winter, we should not expect too much in the way of a crop this summer from the weakened trees.

The important question is, what can we do to aid these weakened trees? The first consideration should be to build up a good supply of carbohydrates by assisting the trees in developing large healthy leaves. This can best be accomplished by following a common sense programme of pruning, orchard management and spraying.

It would appear logical not to do any pruning as these

weakened trees will need every leaf they are able to unfold to build up the existing low supply of carbohydrates. Some corrective pruning or removal of dead branches may be necessary but nothing more should be attempted as pruning will reduce the potential leaf area.

After the experiences of this past season it is obvious that we must spray our orchards thoroughly if we are to maintain healthy foliage. Regardless of how trying the circumstances may be we cannot afford to deviate from the spray programme laid down by the leading specialists in this field of research. We should avoid as far as possible the use of caustic sprays that are likely to injure the foliage in any way and resort to the use of the milder sulphurs which are non-injurious to the foliage and yet give a reasonably good control of scab.

Now what should be our policy in respect to the application of chemical fertilizers in 1946? Dr. Hill covered this ably in a recent address to the Quebec fruit growers when he said, "growth should be stimulated by the use of a moderate application of a nitrogenous fertilizer *but we do not advise any drastic increase in rate of application compared with normal rates*. Growers who have been consistently employing the recommended annual rates and have been obtaining adequate growth have no need to increase that rate of application. After all, these trees have been weakened not because the supply of available nitrogen was inadequate but because the leaves were unable to perform their function of manufacturing carbohydrates. Excess amounts of available nitrogen may simply widen the carbohydrate-nitrogen ratio and delay the return to normal cropping."

College to be host to professional agriculturists

Two groups of professional agriculturists will hold conventions at Macdonald College during the coming summer. On the 19th and 20th of June 500 members of La Corporation des Agronomes will attend the annual meeting of their society under the direction of their president, Prof. E. A. Lods. A few days later, from June 24th to 27th, the first annual meeting of the Agricultural Institute of Canada (formerly the C.S.T.A.) will discuss current agricultural problems, and representatives from every province will attend. Arrangements for this meeting are being made by Mr. R. K. Bennett, president of the Montreal A.I.C. local and Prof. W. D. McFarlane, president of the Macdonald College local.

"Well," remarked a married man, after examining his friend's new flat, "I wish I could afford a place like this."

"Yes," said his friend, "you married men may have better halves, but we bachelors usually have better quarters."



DEPARTMENT OF AGRICULTURE

*Activities, Plans and Policies of the Quebec
Department of Agriculture*

What of the Quebec Sugar Refinery?

We have a beet sugar refinery at St. Hilaire which could produce 30,000,000 pounds of sugar a year — one-tenth of the total sugar consumption of the Province of Quebec. The only reason why the factory is not producing its total capacity is that Quebec farmers are not growing enough sugar beets to supply the factory with the raw materials.

Naturally, it takes time to convince growers that they should devote land, material and labour to a new crop, one with which they are probably not too familiar. But those who can see the whole picture are so convinced of the advantages of growing a few acres of beets on the farm, that they sometimes fail to understand why the farmer does not share their enthusiasm.

To operate the refinery at its full capacity would require 120,000 tons of beets a year. Taking \$10.00 a ton as the price to the farmer and this less than the growers received in the past two years) this would mean a cash income of \$1,200,000 to be divided among the growers. And other classes of the population would benefit too: the refinery would pay out over \$120,000 in wages to local labour, and purchases from local merchants for supplies (coal, lime, lubricants, spare parts, repairs, etc.) would amount to another \$200,000 a year.

But to get down to specific cases — why is it that the growers have shown such relatively small interest in growing sugar beets? In an effort to answer this question, answers were sought from a representative group of farmers who visited the plant last fall, and here are some of the replies. 78% said that they did not have enough labour on their farms to grow beets, but almost two-thirds of this group admitted that sugar beets pay at least as well as any other crop.

61% had not had any crop failures with beets — 39% had. Their lack of success was attributed to various factors: the dry season in 1944 and lack of preparation of the soil. And over 90% of those whose beet crops had failed admitted that other crops had failed the same year. 72% of the growers said that it costs no more to produce sugar beets than it does to grow tomatoes, beans, sweet corn or tobacco. They were all sure that proper underdrainage would improve their chances of success, and 91% of them were prepared to spend money on drainage if a ditching machine could be obtained. And many growers stated that they would grow beets if they could know, when they signed their contract, what the price per ton was going to be for their crop.

Practically everyone who has already grown beets has confidence in the crop — all that remains to be done is to convince their doubting neighbours. Many of the present difficulties will disappear before long. Labour will become more plentiful. New and better machines will be made available. Transplanting is the answer to those who find the work of thinning too hard; experiments in 1945 showed that just as good yields could be obtained by transplanting seedlings, and at a lower cost of production.

It takes less seed to grow seedlings for transplanting than it does when seed is sown in the field direct, and this method should be popular in those districts where the farmers already own transplanting machines which they use for tobacco and tomatoes. Fields of transplanted beets need less hoeing, no thinning is required, and the whole business of growing the crop is simplified.

If properly grown, sugar beets yield heavily. In 1944 the average production in Quebec was only 8.5 tons per acre, but in 1945 at least 200 growers got crops of 10 tons or more. And the 20 best growers averaged 15.7 tons in 1944 and 19.6 tons in 1945.

At the price paid by the refinery during 1944 and 1945, a yield of 10 tons to the acre meant a gross income of \$125. in 1944 and \$120. in 1945. But the 20 best growers mentioned above made an average gross income profit of \$19.25 per acre in 1944 and \$25.20 in 1945. Accurate cost of production figures for Quebec are not available yet, but in Ontario, in 1939, it averaged \$53.78 per acre for 204 farms, and in Michigan the average from 1933 to 1936 was \$48.18. Suppose we say that the cost of production in Quebec will be \$70.00 per acre. Those 20



A stock pile of beets awaiting processing.

best growers will have a *net* income of \$126.00 per acre for 1944 and \$165.00 for 1945. And that is not too bad for a crop with an assured market. Whether the beets are large or small, smooth or rough, the refinery takes them all. The tops stay on the farm to be used as feed, and beet growing, by requiring the best possible soil preparation and cultivation, improves the land for the crops that follow in the rotation.

The refinery was built for the benefit of the farmers who are close enough to ship beets to it. It was never the intention to suggest that every farmer should grow large acreages of beets; the original plan was that every farmer should be encouraged to grow a few acres as a supplementary cash crop. To run economically the refinery should process at least 60,000 tons of beets a year; the ideal would be twice that. This is an attractive proposition for the farmers of the district — will they take advantage of it?

The refinery has met criticism from various quarters ever since it was built. It is claimed that the cost of building was far too high, and there may be some justification for this statement. But that is no reason for sabotaging the factory's operations. The experience of refineries in the

United States has shown that it takes 6 to 10 years of operation to repay the capital cost of a \$2,000,000 factory. But even if it takes twice as long to pay for the St. Hilaire refinery, it will be worth it in the long run.

Guaranteed Price for Sugar Beets

Since the above article was prepared for publication, Minister of Agriculture Barre has announced that sugar beet growers will receive \$12.00 per ton of beets shipped to the St. Hilaire Refinery in 1946.

In addition to this most satisfactory guaranteed price, additional incentives are being offered. For example, every farmer who ships at least 50 tons of beets and has them accepted by the factory will be given a beet puller. Every farmer who ships over 75 tons may have his choice of a beet puller, a seeder or a cultivator worth anywhere from \$100 to \$160.

These measures have been taken in an all-out effort to secure supplies for the refinery: the offers are most generous, and it is up to the growers to take advantage of them. To quote the Minister, "The crop in 1946 will show whether or not the farmers want the refinery to stay in operation."

Pomological Society Winter Meeting

Marketing Committee Report

With practically no crop to sell, the marketing committee had little to report. It will be remembered that at last year's meeting it was decided to take a vote of the membership to get the reaction of the growers to the proposal to collect a tax of one cent on each bushel of apples to create an advertising fund. Obviously, this was not gone ahead with, but the committee is still convinced that a really worthwhile advertising campaign must be undertaken eventually, and the idea has by no means been dropped.

Interesting papers presented

Reports on the potential value of newer spray materials featured several of the talks, and a fairly complete

W. J. (Bill) Tawse handled his last meeting of the Quebec Pomological Society in Montreal on February 14th and 15th and then turned the position of English Secretary over to Hamilton Marshall who will carry on the job held by Bill Tawse for the past twenty years. As a mark of appreciation for the yeoman service Bill has rendered the Society during his term of office, Morley Honey, on behalf of the membership, presented him with a gold watch, and a suitable presentation was made at the same time to Mrs. Tawse.

With partial or complete crop failures fairly general last year in the province, the members at the meeting were keenly interested in anything that the "experts" could tell them about the prospects for the coming summer. In this connection the article by Don Blair of the C.E.F., which appears elsewhere in this issue, contains some valuable information which we are glad to be able to pass on to our readers.

No young stock available

Last April about 9000 apple trees were received and distributed: this was less than one-sixth of the orders received, but due to shortage of root stocks, labour, and heavy losses caused by mice and rabbits, this was all that could be secured. For the coming season there are no two-year old trees properly headed and one year whips were not considered satisfactory. Some trees may be ready for planting in 1947.

The estimate of crop in 1945 for the province as a whole was, including all varieties, 80,000 bushels as compared with 900,000 bushels in 1944.



President-elect Thomson looks on as the books of the Society are turned over to the new secretary-treasurer.

summary of these makes up an article by C. E. Petch which will be printed soon. Mr. Petch, in reporting on the experiments in spraying which were carried on at Rougemont last summer, stated that "the significant success obtained by using micronized sulphur in control of apple scab, under such ideal conditions for its development, indicates that a satisfactory fungicide to replace lime sulphur has been found."

W. R. Phillips, coldstorage expert from the C.E.F., compared three methods of handling the apple crop; (1) pre-cooling at the orchard and shipment to cold storage, (2) pre-cooling and storage on the spot, (3) the usual commercial practice, and left it to his hearers to determine which they would choose if they were going to install cooling equipment. Prof. Murray of Macdonald College described the new cold storage plant there. Once this plant is in operation, some valuable information will come out of the experimental work that will be done in connection with it.

New Varieties

The varieties committee reported that, in their opinion, there are four varieties which should be given a wide trial in growers' orchards as soon as trees are available. These are *Bancroft*, *Spartan*, *Victory* and *Kendall*. Including these four, thirty-seven varieties are at present under test at the College, and others will be added as they become available. It is hoped to add five new ones this summer.

New Executive Appointed

Roswell Thomson will be the president for the coming year, with Lucien Fontaine vice-president. Hamilton Marshall is the new English secretary, and Lucien Laporte remains as French secretary. Directors will be Brother Fernand, Oka, G. Beaudin, Franklin Centre, A. Sommerville, Hemmingford, C. A. Pinsonnault, St. Hilaire, J. Gillespie, Abbotsford, G. A. Baillargeon, Rougemont, R.



Some of the officers and directors of the Quebec Pomological Society. Front row, Roswell Thomson, L. Fontaine, L. Laporte. Back row, H. Marshall, J. Gillespie, G. Beaudin, R. Thomas.

Primeau, Chateauguay, W. A. Churchill, Covey Hill and R. Thomas, Frelighsburg.

Barley Growing Contest to be Organized

To increase the growing of quality malting barley, and also to make sure that quality seed will remain available in sufficient quantity, the Dominion Brewers Association is sponsoring a nation-wide barley contest, with \$25,000.00 to be allocated in prize money.

The contest will be confined to recognized malting barley areas in Canada, and in view of the differences in the methods of farming and marketing, two separate contests, one in the West and one in the East, will be conducted. The Western contest will cover Manitoba, Saskatchewan, Alberta and the Peace River block of British Columbia; the Eastern contest will cover Ontario and Quebec. The prize money will be divided between these two districts in approximate relation to the amount of barley produced — \$18,750 for the Western contest and \$6,250 to the Eastern contest.

In each of the divisions contests will be held inter-provincially, provincially and regionally. In the Eastern division the prize money to be allocated for interprovincial contest will be \$1,500; prizes for the provincial contests will total \$700, for each province and there will be \$1,675. for regional contests in each province. All regional prize winners, in addition to the cash awards, will receive 10 bushels of registered seed.

The contest will be limited to the following varieties: O.A.C. 21, Mensury (Ottawa 60), Olli, and Montcalm. Only bona-fide farmers may compete — farms supported by commercial or government organizations are not eligible.

All samples to be eligible must grade 2 C.W. or 2 C.E. or higher as the case may be with dockage. Judging will be based on (a) field inspection after heading and before harvest to observe size, general appearance, uniformity, trueness to type of the variety, freedom from weeds and diseases, and other field characteristics; (b) grading on a basis of Canadian grain standards and judging on the basis of suitability as seed barley and for use in the brewing and malting industries, test weight, percent skinned and broken kernels, percent undersize (thin) kernels, trueness to variety type and other seed and market characteristics.

The final date of entry is June 15th. More information will be available when other details have been worked out.

Mexican Students at the St. Hyacinthe Dairy School

Sponsored by the National Farmers' Confederation of Mexico, five Mexican students came to Canada last month and are now taking a series of courses at the Provincial Dairy School at St. Hyacinthe. All five are holders of scholarships from the Mexican Government and should this experiment prove successful, other students will be sent up to Quebec later.

Field Crop Varieties Recommended by the Quebec Seed Board for 1946

In most classes of farm crops there are numerous varieties which differ widely in such characters as yield, quality, and adaptability. Only a very few are best suited to any part of the country. With a choice of the most suitable varieties in mind, the Quebec Seed Board has had a special committee working on the problem for several years. This committee is familiar with conditions existing in different parts of the Province. It has the cooperation of the Experimental Stations and Agricultural Colleges where extensive variety tests are carried on for this purpose.

In most cases, varieties which appear on the list have been thoroughly tested against many other available varieties and as the result of such comparisons have been chosen as being the most recommendable.

OATS:

GRAIN CROPS

Early Maturing:

Cartier:—Very good quality, good yield.

Mabel:—Very good quality, good yield, resistant to leaf rust.

Medium Maturing:—(4 to 7 days later than early group).

Erban:—Good quality, good yield, resistant to leaf rust.

Vanguard:—Good yield, resistant to stem rust.

Medium to late Maturing:—(8 to 12 days later than early group).

Banner:—Good yield, generally adapted.

Lasalle:—Very good quality, good yield. Partially resistant to stem rust. As it produces well under hot dry conditions, it is especially adapted in the general district of Montreal.

Roxton:—Very good yield and quality. Some resistance to stem rust, and definitely more resistant to leaf rust than other varieties recommended.

BARLEY:

Rough-Awned Varieties:

O.A.C. 21:—Six-rowed, early, good yield, generally adapted and especially recommended for malting.

Pontiac:—Six-rowed, about two days later than O.A.C. 21, good yield, good straw and generally adapted.

Smooth-Awned Varieties:

Byng:—Six-rowed, early, excellent yield. (Not recommended on very rich soil where the crop is apt to lodge).

Velvet:—Six-rowed, early and good yield.

WHEAT:

Coronation II:—Bearded, white-chaff, late, maturing, good for breadmaking, resistant to stem rust.

Garnet:—Beardless, very early maturing, and good for bread-making.

BUCKWHEAT:

Japanese:—Smooth hull, large seed with vigorous growth.

Rough-Hull:—Very small seed, rough hull, suitable for feeding purposes only.

Silverhull:—Smooth hull, small seed.

FIELD PEAS:

Arthur:—Medium maturity, medium size, short straw, suitable for grain and for soup.

Chancellor:—Early, small size, medium length of straw, suitable for grain, for O.P.V. mixture, and for soup.

FIELD BEANS:

Improved Yellow Eye:—Early, very large seed, with yellow eye. Suitable for table use where there is no objection to the yellow eye.

Corvette:—Early, white, large seed, suitable for table use.

Michelite:—Later, white, small seed, suitable for table use.

Robust:—Later, small seed, good yield, suitable for table use.

FIBRE FLAX:

Liral Dominion:—A new variety developed in Northern Ireland which has given particularly fine results in Canada. The variety is tall and of a particularly vigorous habit.

Stormont Cirrus:—Rather late, very long and strong straw, very good yield of fibre and a fair yield of seed. The quality and strength of straw place this variety among the best.

Stormont Gossamer:—Late, long straw, rather weak. Good yield of fibre and very good yield of seed. The fibre is of good quality and this variety ranks with Cirrus as one of the best.

GRAIN MIXTURES

Under some conditions it may be desirable to grow mixtures of grain. When this is done it is important that the varieties used should ripen at the same time. They should be chosen from those that are recommended for the different districts.

EARLY MIXTURES:

| | Rate per acre |
|---|---------------|
| <i>Cartier or Mabel</i> | 50 lbs. |
| Any varieties of barley on the recommended list | 50 lbs. |

MEDIUM MATURING MIXTURES:

| | Rate per acre |
|---|---------------|
| <i>Erban or Vanguard</i> | 50 lbs. |
| Any varieties of barley on the recommended list | 50 lbs. |

MEDIUM TO LATE MATURING MIXTURES:

The later varieties of oats *Banner* and *Lasalle* may be mixed with any of the recommended barley varieties at the same rates as above, but as all of these ripen ahead of the oats there is a likelihood of considerable loss.

As the Seeds Act does not provide for seed grain mixtures, those recommended cannot be purchased. It is therefore necessary each year, to make up the mixture at home by using the proper varieties, proportions and rates.

CORN CROPS

ENSILAGE VARIETIES:

OPEN-POLLINATED:

Salzers (North Dakota):—An eight-row, white flint, early maturing.

Golden Glow:—A fourteen to sixteen-row yellow dent, medium maturing.

Silver King (Wis. No. 7):—A fourteen to sixteen-row white dent, medium to late-maturing.

HYBRIDS:

Varietal Hybrid:

Algonquin:—This is a varietal hybrid. The seed sold is a light yellow colour but the crop grown produces ears with a mixture of yellow and white kernels. The variety is very early maturing.

Double-Cross Hybrids:

Can. 240:—This is a double-cross hybrid. It is a yellow dent variety giving ears with fourteen to sixteen rows. It is very early maturing.

Can. 531:—This is a double-cross hybrid. It is a yellow dent variety giving ears with fourteen to sixteen rows. It is early maturing.

Can. 606:—This is a double-cross hybrid. It is a yellow dent variety giving ears with fourteen to sixteen rows. It is medium maturing.

GRAIN VARIETIES:

Quebec 28:—A twelve-row yellow flint, for grain only, early maturing.

ROOT CROPS

In the following list of root crop varieties, all of the swede and mangel sorts are registrable. The Board recommends the use of registered seed. Experience has shown clearly that ordinary commercial seed cannot be depended on for quality, uniformity or trueness to type. In contrast, the registered material is being constantly selected and is being grown and packaged under strict supervision. It therefore represents the highest grade of root seed available and, while it will cost more, the results will justify the extra expenditure.

SWedes:

Acadia:—A globe-type with purple skin colour. Bred and introduced by the Experimental Farm Ottawa.

Ditmars Bronze-Top:—A flat-globe to globe-type with green to bronze skin colour. Selected by Mr. R. V. Ditmars of Deep Brook, N.S.

Laurentian:—Globe to slightly longer than globe-type with clear purple skin colour. Bred and introduced by the Agronomy Department, Macdonald College, Que.

Wilhelmsburger:—Globe-type, with green skin colour. Introduced from Europe. Recommended as possessing resistance to club-root.

MANGELS:

Frontenac:—Intermediate, of orange-yellow colour. High in yield and medium in dry matter. Bred and introduced by the Agronomy Department, Macdonald College, Que.

Giant White Sugar:—Half-long, white, rather low in dry matter. Bred and introduced by Ralph Moore, Norwich, Ont.

Prince:—Half-long, white, low in dry matter, high gross yield. Selected by R. Moose, Annan, P.E.I.

Tip-Top:—A short intermediate, of orange-yellow colour, high in dry matter. Bred and introduced by the Central Experimental Farm, Ottawa.

CARROTS:

Giant White Belgian:—Very long type, slim, grows one-third out of ground.

White Intermediate:—Intermediate, grows entirely under-ground.

POTATOES:

Irish Cobbler:—White, good quality especially suitable for an early crop.

Green Mountain:—White, good quality, suitable for main crop, on light soils.

HAY AND PASTURE CROPS**RED CLOVER**

Dollard:—An early variety which is hardy, high yielding and disease resistant and which will produce two cuts per season. It has been selected from material grown at Macdonald College since 1911 and is well adapted to local conditions.

Ottawa:—An early variety which is hardy, a good yielder, hairy-stemmed, dark seeded, disease resistant and produces two cuts per season. It was developed by mass selection methods at the Central Experimental Farm, Ottawa.

ALFALFA:

1st Choice:—Registered Grimm.

2nd Choice:—Certified Grimm or Certified Ontario Variegated.

MIXTURE FOR HAY**Mixture "A"**

For well drained, non-acid soils

Rate per 100 lbs.

| | |
|--------------------------------|----|
| Timothy | 50 |
| Medium Red Clover (double-cut) | 20 |
| Alsike Clover | 5 |
| Alfalfa | 25 |

Rate of Seeding:—13 lbs. per arpent

16 lbs. per acre

Mixture "B" (*)

For soils, not well-drained.

Rate per 100 lbs.

| | |
|--------------------------------|----|
| Timothy | 55 |
| Medium Red Clover (double-cut) | 30 |
| Alsike Clover | 15 |

Rate of Seeding:—13 lbs. per arpent

16 lbs. per acre

(*) Add two pounds of Alfalfa per arpent where conditions appear satisfactory for a trial with this crop.

MIXTURES FOR HAY AND PASTURE

Before using any of the three following mixtures for pastures purposes, study carefully the recommendations of the Quebec Provincial Pasture Committee. These are available from any of the provincial agricultural offices.

Mixture "C" (*)

For soils inclined to be acid.

Rate per 100 lbs.

| | |
|--------------------------------|----|
| Timothy | 47 |
| Medium Red Clover (double-cut) | 20 |
| Alsike Clover | 13 |
| Kentucky Blue | 13 |
| Red Top | 7 |

100 lbs.

Rate of Seeding:—12 lbs. per arpent
16 lbs. per acre

Mixture "D"

For well-drained, non-acid soils.

Rate per 100 lbs.

| | |
|--------------------------------|----|
| Timothy | 48 |
| Medium Red Clover (double-cut) | 15 |
| Alsike Clover | 8 |
| Alfalfa | 16 |
| Kentucky Blue | 13 |

100 lbs.

Rate of Seeding:—12 lbs. per arpent
16 lbs. per acre

(*) Add one pound of Wild White Clover per acre where it does not volunteer readily from the soil.

LONG TERM PASTURE MIXTURE (*)

Rate per 100 lbs.

| | |
|--------------------------------|----|
| Timothy | 35 |
| Medium Red Clover (double-cut) | 20 |
| Alsike Clover | 10 |
| Kentucky Blue | 15 |
| Red Top | 15 |
| Wild White Clover | 5 |

100 lbs.

Rate of Seeding:—16 lbs. per arpent
20 lbs. per acre

(*) In many sections of the province it has been found satisfactory to seed this mixture with a nurse crop of three bushels of oats per acre or two-and-a-half per arpent, as early in the spring as possible. The nurse crop is then grazed in the same year as soon and as often as it reaches a height of 6". On heavy land which is likely to be wet, this type of management may not be satisfactory. The alternative is to seed in the spring and harvest the nurse crop for grain or to seed in midsummer without a nurselcrop. Grazing should not be too severe during the first year — especially in September.

Agricultural Merit Competition for Zone 2 in 1946

Farms from the counties of Bagot, Brome, Chambly, Compton, Drummond, Iberville, Mississquoi, Richelieu, Richmond, Rouville, St. Hyacinthe, St. Jean, Shefford, Sherbrooke, Stanstead, Vercheres and Yamaska will be eligible for entry in the 1946 Agricultural Merit competition to be held during the summer of 1946. The contest was held in this district last in 1941 and 167 farms were entered: 33 for the Gold Medal, 77 for the Silver Medal and 57 for the Bronze Medal.

Holders of Gold Medals from this district include Henri Boulais, Marieville (1926), Frederic Poulin, St. Valentin (1931), Donat Girard, Ste. Rosalie (1936) and G. B. Beaulieu, Lennoxville (1941).

New Brunswick's Veterinary Service Policy

OWING to the very limited number of veterinarians in New Brunswick and because of an increasing demand by livestock breeders of the province for the service of veterinarians on the Departmental staff, a veterinary service policy has been adopted.

The Department of Agriculture of New Brunswick will establish veterinarians in definitely prescribed districts throughout the Province as quickly as qualified officers are available, and the Minister reserves the right to establish such district officers in those areas where the need for veterinary service is the greatest.

The Provincial Veterinary Laboratory at Fredericton will continue to be the executive centre and the Director of Veterinary Services with office and laboratory staffs will direct the District Services from this centre.

The Laboratory staff will assist in the clinical diagnosis of animal diseases by laboratory procedures and all specimens for bacteriological and pathological study will be forwarded to the Laboratory by the district veterinarians. District veterinarians will have definitely prescribed areas in which to render service to owners of livestock with disease problems, but it may be necessary in the early period of operation of this policy to require district officers to leave their districts for service in localities beyond the borders of their district.

Since this policy will entail a much heavier expenditure on the part of the Department of Agriculture, it has been considered necessary to make a charge of \$2.50 for all visits made in response to phone calls received at the veterinarian's office, between the hours of 9 A.M. and 5 P.M., on all working days except Saturday, when the hours will be 9 A.M. to 1 P.M. Charges for calls outside the above mentioned hours and Sunday calls will be a matter of negotiation between the veterinarian and the person requesting his service.

As in the past a charge will be made for all materials used in the treatment of all livestock ailments.

As the charge for service is a nominal one and only covers a small portion of the cost of operating such a policy, the district veterinarian is required to collect the amount necessary to cover the visit charge and cost of materials used at the time the call is made and will be responsible for same to the Department. A receipt shall be given for all monies received which shall show the purpose for which the charge was made, one copy to be handed to the owner or his agent, one copy to be forwarded to the head office, and one copy to be retained by the district veterinarian.

Collect telephone calls and telegrams requesting service shall be charged back to the person making same.

The district veterinarian will be responsible for the conduct of serving in his district and will arrange his work in a manner permitting the maximum amount of service

for the district. Naturally infectious disease outbreaks and emergency cases will be given prior consideration. When it is considered necessary by the veterinarian to make repeat visits to a premises in the best interest of the patient, or where disease investigation is involved, the district veterinarian will be permitted to use his own discretion as to whether or not a visit charge should be made.

The present policy of free service in connection with Bang's Disease control work will continue except, as in the past, where a charge is made for vaccine used in the vaccination of calves with Strain No. 19 for immunization purposes against Bang's Disease. This charge is made to cover the purchase cost of the vaccine by the Department.

Free service will continue to be offered to groups of farmers wishing to have horses and colts treated for internal parasites, provided that such horses and colts are assembled at convenient centres and in sufficiently large numbers to warrant the service. Such service should be arranged through the District Office or through the Head Office at Fredericton in those areas where districts have not yet been established. At the present time the cost in materials consists of a charge of 25c for treating an adult horse, and 20c for colts.

The Minister of Agriculture may withdraw or amend or replace this Policy at any time it is considered in the best interest of the Department and livestock owners of the province to do so.

The district veterinarians appointed under this plan are located in districts where agricultural representatives are established, and in this way office accommodation is shared by both officials making it possible to keep down initial installation costs, and the services of the office staff are available to both agricultural and veterinary officers. The veterinary division is under the direction of Dr. J. T. Akins, Fredericton.

By the Way

Oranges, irrespective of size, that receive the most sunshine have the most Vitamin C in their juice.

The cow has been called the "foster-mother of the world": she is the most indispensable of all domestic creatures.

The Chinese used iodized salt to prevent goiter 1500 years ago.

Unripe walnuts contain 40 to 50 times as much Vitamin C as do lemons or oranges. An unbearably bitter juice concentrate is prepared and then processed to make the taste more palatable.

You can get juice more readily from lemons and oranges when the fruit is warm. Same is true of egg whites — they whip better at room temperature.

A bottle of milk left on the doorstep in the sunlight loses a considerable portion of its Vitamin B₂ (riboflavin) in half an hour.



THE WOMEN'S INSTITUTES SECTION

*Devoted to the activities of the Quebec Institutes
and to matters of interest to them*

Education for Living

by Bernice M. Daintrey

There is an old saying "Live and learn," which we often hear cited. It expresses a truth, for no one will deny that the years bring us much experience from which valuable lessons are learned. But I should like for once to reverse this old piece of advice and say "Learn and live"; for it seems to me that living in its fullest sense is dependent on learning. Hence the title of this article — Education for Living.

What do we mean by education? The word implies so much that it is difficult if not impossible to lay down any hard and fast definition, but we can perhaps arrive at something of its meaning. Those of us who went to school in the days when some knowledge of Latin was considered a wise if not absolutely essential part of one's equipment for living, remember the verb "ducere" to lead out. It is from this word that our word education is derived. Thus, we get a leading out from chaos to order, from darkness to light, from ignorance to knowledge. In short the original meaning implies going forward. I think that meaning is just as applicable today as it ever was. Real education must always go forward, not back, and must take on new meaning with every day of life. Education in its truest sense is training which enables us to develop the best in ourselves and to make a worthwhile contribution to society. Education, therefore, should teach us to live.

Now what are the tools by means of which we are to obtain this training which will enable us to experience life at its best?

First of all, I list the home and the training received therein. In the years before he goes to school the home is the child's world and the influence of the home on the child during these years is beyond calculation. Habits are formed in children at a very early age, and the child who is taught during these early years to think of others as well as himself, the child who is taught to be kind to other children and to animals, and to see beauty in the trees and flowers, this child has taken the first steps in preparation to live with satisfaction to himself and with usefulness to his community. When this child begins school he presents no problem to the teacher; his feet are already on the right path and he needs only guidance along the road.

The second of our tools, and a most important one is the school. The years which we spend at school, are perhaps the most impressionable of our lives, and no school system has as yet been evolved which meets all the requirements of youth. We need in the teaching profession men and women of high moral integrity and great intellectual

capacity. But we need more than this, men and women of vision, gifted with the ability to give leadership and guidance. We should have a flexible curriculum in order to meet the needs of all. This has been a great lack in the past. The subjects taught in our higher grades have been to a great extent, those required by the minority. Many boys and girls have left school at an early age because we have not offered what was within their grasp and so have failed to give them the training for living which is their due. Today we note a change with much stress being placed on subjects of practical value. This is good, if we do not go to the other extreme and completely oust cultural subjects from our courses. In our desire to achieve the practical, let us not forget that out of the civilizations of Greece and Rome grew many of the ideals for which men have so recently poured out their blood in the struggle to maintain a decent social order.

But our schools must do more than provide boys and girls with interesting subjects to study and modern apparatus to work with. In the class room and on the play ground the lessons of cooperation and fair play must be learned and the ideals of courage, self-control, truthfulness and purity must be nurtured. Only then will our schools have done their full work in training for life.

It was felt at one time that when young men and women had finished school or college, they were fully trained for life. But the young men and women of the twentieth century are members of a more complex society, faced with the many problems that must be solved in the forward march towards the democratic ideal. More than ever before in the history of civilization, they need training for dealing with these problems as they arise in their daily life. Fortunately they are not without the necessary tools.

A product of the twentieth century and its needs is the movement which we know as Adult Education, through the many sided activities of which men and women can continue the real business of education. We have learned that no man liveth to himself and that no individual can say with truth that the affairs of his community are not his concern, nor can a nation hold aloof from the affairs of the world. Only by facing the fact that there are problems, by working together to find the causes and the solutions can individuals or nations make progress. Facilities are now at our command to help us in training ourselves for this work. By means of the radio a national programme is made available based upon the problems confronting Agriculture and upon the problems connected with our life

as citizens of a nation. I refer to Farm Forum and Citizens' Forum broadcasts. From coast to coast groups of people are meeting together to discuss these problems and to work out satisfactory answers. Through these discussions they are becoming conscious of the fact that the answer cannot be obtained by considering just one group or even one province, but the whole country. Thus, these discussions are a unifying factor and a means of interpreting the viewpoint of one part of the country to another. Again, what of the Community Council, the Travelling Library, the film circuit? Are these not tools ready to our hands, with which we can educate ourselves for more abundant living and for true democracy?

What One Institute Has Done



The "Dr. C. M. Smith Memorial Foundation".

Scotstown is a thriving little town in the Eastern Townships of Quebec. When their beloved physician died recently it was felt some memorial should be erected to perpetuate his life of service in that community. At his passing no medical care was available, no nurses could be procured, roads were closed in the winter to other points and train facilities were not satisfactory. The W.I. conceived the idea of purchasing a house to be used as a home for a resident doctor and also as a medical centre, equipped with X-ray, dental equipment, etc. A letter was drawn up and circulated throughout the district, also to former residents now far afield. Subscriptions came pouring in from \$1 up, mostly up, the largest amounting to \$1500. The home was purchased and a good working balance left to buy the necessary equipment and provide for upkeep and insurance, they have been granted exemption from taxes. A young married doctor has been procured, a McGill graduate who has seen service in both Italy and Germany. He is much in favour of the project and is willing to cooperate in every way to make it a success. It is entirely an Institute undertaking and they have been granted a charter for the "Dr. C. M. Smith Memorial Foundation." Scotstown and district are now assured of facilities for the protection of the health and welfare of its citizens thanks to the energy and initiative displayed by this branch of the W.I. Surely this is a fitting tribute to one whose life was spent in service to his fellow-men.

W.I. Looks to the Future

Reports of work accomplished have their place. They serve as a record of past achievement and as a yard stick to measure progress. But without plans for the future any organization would soon cease to function. In the suggestions given by the conveners at the January board meeting we find that forward look.

Concerted action for the detection and control of venereal disease was stressed not only by Mrs. G. A. LeBaron, convener of Welfare and Health, but also by Miss A. C. Dresser, chairman of the committee on Post-War Reconstruction. A campaign of education was urged by means of films and literature with pressure to be brought upon our legislators to frame laws for compulsory pre-marital tests for V.D. In this connection Mrs. LeBaron suggested every W.I. member write their representative asking them to support such a measure.

The need for more opportunity for recreation for rural youth was also mentioned by Miss Dresser, if we wish to make country life more attractive for our young people. Summer camps for girls and hostelling were two suggestions made. The association in charge of Sponsored Tours and Youth Hostels is willing to cooperate with the W.I. and it is expected arrangements will be forthcoming for this worthwhile project.

Mrs. C. S. Daintrey, convener of Education asked there be continued interest in and endeavour to promote County School Boards. She also stressed the desirability of taking advantage of all forms of Adult Education. In view of the modern trend in education which does not stress competition, Mrs. Daintrey suggested that instead of offering prizes radios might be placed in the schools which would benefit all the scholars by giving them an opportunity to take advantage of the many valuable broadcasts prepared for school listening.

Mrs. H. Ellard, War Services, expected there would be another clothing drive later and asked her hearers to keep this in mind and be prepared to give it the generous support accorded the first one. She also made a strong plea for financial support for the "Save the Children" Fund. (See February issue).

Several conveners were unable to be present, namely; Mrs. H. H. Mortimer, National and International Relations; Mrs. Volney Hurley, Home Economics; Mrs. H. C. Yates, Agriculture. Mention of the proposed new flag for Canada in Mrs. Mortimer's letter touched off a lively debate showing everyone has decided opinions on this current issue.

Suggestions as to the best use to be made of the W.I. section in the Macdonald College Journal were held over for the time being. In this connection would those county presidents, who were unable to attend the board meeting, please write the Publicity convener, Mrs. H. G. Taylor, Ayer's Cliff, as soon as possible.

Two Months with the W.I.

Argenteuil. Brownsburg is another branch that has purchased a Victory Bond. Splendid work in War Services was reported. Frontier sent \$10 to the Children's Memorial Hospital. Mrs. Smallman's letter was discussed for the program. Jerusalem-Bethany welcomed a new member and enjoyed a contest. \$5 was voted for the Salvation Army. Lachute made plans to entertain the wives of the service men. 15 books were donated to the local library by a member. Lakefield has adopted the Blue Cross Hospital plan. Morin Heights has enriched their treasury by \$69.55 through various activities. A sale of home made articles at this meeting also netted \$8. The president had charge of the program and read an article entitled "Circumlocutions" Milles Isles contributed \$10 to the Red Cross. "A Worthwhile Suggestion for next Year's Program" is noted as a rollcall of value. A paper on "Tomato Culture" was given. Pioneer heard an interesting letter from a W.I. member in England. \$5 was donated the Children's Memorial Hospital.

Chateauguay-Huntingdon. Hemmingford had as guest speaker Mr. C. E. Petch, who gave a talk on "A Short History of Agriculture." He asked his hearers to support education in this subject. The steps leading on from the San Francisco Conference to the meeting of the United Nations Assembly were outlined by Mrs. D. F. Orr, completing a most informative program. Three new members were enrolled.

Compton. Bury has made arrangements to have the English handicraft films shown in their community. \$10 was voted for gifts for returned men and women. Gifts were also sent to the Wales Home and Sherbrooke Hospital and plants to sick members. A publicity quiz was enjoyed and plans made for social evening. Canterbury is sending seeds to Britain. Another worthwhile rollcall is noted, "How can our W.I. make a Better Community?"

Gatineau. Rupert also used the above mentioned roll-call as a discussion for their programme. Eardley is planning a banquet in honour of their returning service men and girls. A cookie contest was held, the winner receiving the recipes. Wakefield members are working on a play. A donation of books to the library was gratefully acknowledged. Wright had as theme for their programme "Health and Welfare." A health contest was held, Mrs. R. Ellard and Miss L. Thayer being the winners. \$8 was donated to "Save the Children Fund."

Megantic. Inverness voted money to the Salvation Army and Children's Memorial Hospital. Articles for a layette were given by the members and sent to Children's Service Ass'n. This branch has a small community library and reports more books have been donated. A most worthwhile undertaking. Lemesurier entertained the semi-annual. Miss Walker attended and gave an instructive talk on "Rehabilitation."

Richmond. Cleveland was entertained by the past county president, Mrs. Watson who conducted a quiz on the handbook. The members presented their hostess with a gift. Talent money was given out and plans made for a card party. Denison's Mills sent baskets of cheer to the sick. A card shower was given an aged lady and a card of sympathy sent a bereaved family. Melbourne Ridge had an interesting quiz by the convener of National and International Relations. The "King's Message" was also read. A committee was appointed to prepare programme for the coming year. Richmond Hill gave a gift to a bride and held a shower for a bride-to-be. Shipton is planning a food and rummage sale. Spooner Pond reports a well attended meeting with much business transacted.

Shefford. Granby Hill meets for a hot lunch at noon during the winter months. A Christmas box was sent to an old lady in a Home in Montreal. The monthly raffle was held, the prize being donated by a member. A contest completed the programme. South Roxton "New Year's Resolutions" was the rollcall, the president very ably giving hers in the form of an original poem. This branch sponsors an annual community supper and tree at Christmas. Warden discussed the Blue Cross Hospital Plan. A bed spread and bath towels were bought for a needy invalid.

Sherbrooke. Ascot gave \$2 to Polish Relief Fund. Brompton Road reports a very satisfactory supper and sale. Gifts were sent two motherless children and they were also entertained at the home of a member on Christmas. Money is given each month to a local school for hot lunches. Cherry River donated articles for the Red Cross. Papers were read on "Home Preparations" and "Overalls and Slacks." Lennoxville presented the play "Brides and Budgets," the parts being taken by three of the members. The Girl Guides had the use of the Institute room for a tea recently and the W.I. are planning a social evening. Orford held an instructive "bird" contest.

Stanstead. Ayer's Cliff had a helpful discussion on how the W.I. may contribute to making a better community. As a follow-up a community rally is planned to discuss a "five-year" plan for adult education and community recreation. Dishes and spoons were furnished for the hot lunch at school. Beebe purchased dishes to replenish stock in the Town Hall. An interesting quiz and a game for all proved enjoyable. The January meeting of this branch is always of special interest as they meet at the home of a member whose mother is now nearing her 102nd birthday. This old lady, Mrs. Emma Moir, receives with her daughter and is delighted when there is a good attendance. Dixville sent 15 baskets of fruit and canned foods to the sick and shut-ins at the holiday season. Stanstead North has begun their annual project of furnishing hot soup to the pupils coming in by bus to Stanstead

College. Tomifobia voted \$10 towards their "soup fund" as children from this district also benefit by this hot lunch. Way's Mills has received a programme from the Home Demonstration Club in Orleans Co., Vt. and a letter from their president was read. They also report another member for the Blue Cross. An amusing I.Q. contest was held.

FEBRUARY NOTES

Argenteuil. Brownsburg planned a sandwich demonstration and tea. A member gave an informative talk on "My Visit to Nova Scotia," telling of the customs and manner of life in the Scotch sections. Frontier cancelled their meeting owing to sickness. Those who were ill, however, were remembered with fruit. Lakefield discussed plans for their exhibit at the next county fair. A quiz, "What do you know about the W.I.?" was held also a letter contest. Lachute has just received a McGill Travelling library. 47 members paid their Blue Cross Hospitalization fees. An inspiring address on the work of UNRRA was given by Mrs. A. Taylor. Morin Heights welcomed a new member. An exchange and parade of aprons was held. Pioneer also cancelled meeting due to prevailing epidemic. Upper Lachute and East End donated \$10 to Children's Memorial Hospital.

Compton. East Clifton gave a donation to the Cemetery Fund. This is done annually in memory of deceased members. An interesting letter was received by the secretary from Tiel, Holland thanking her for a coat she had donated in a Bundle for Britain, she had included her name and address. A successful apron contest was held.

Chat-Huntingdon. Aubrey-Riverfield donated \$5 to local school to help furnish hot lunches. The story of Florence Nightingale was read and a travelogue talk given by two of the members who have recently returned from California. Articles of interest from that state were also exhibited. Dundee heard an authentic history of their town given by Mr. A. H. Fraser, sec'y-treas. Mr. Fraser also answered questions on municipal laws. This branch is enrolling in the Blue Cross Hospital Ass'n. A resolution re control of V.D. was signed by all the members and sent to local representative and Ministry of Health. Franklin Centre had as guest speaker Rev. T. F. Duncan who gave a timely address on Citizenship and our attitude toward the deportation of the Japanese. A paper, "The Origin of St. Valentine," was read by a member. Howick is another branch reporting letter sent to their member on control of V.D. \$5 was voted toward hot lunches in school. A paper on "Temperance" and a suggestion, "How to Stretch Butter" by convener of Home Economics completed the programme. Hemmingford held a White Elephant sale. \$11 was realized and sent to "Save the Children Fund". A resume of the life and work of Thos. Costain, author of "The Black Rose," was given by Mrs. C. E. Petch.

Huntingdon had an exhibit of handicrafts including home made soap and sewing. Rev. T. Knowles was present and gave a thought provoking talk on "Juvenile Delinquency". This branch reports the death of Mrs. T. S. Gardiner, their past president. Mrs. Gardiner has served on the provincial executive on two occasions, as convener for Welfare and Health and later Education. She was life member of the Q.W.I. Our sympathy to this branch in the loss of a valued member.

Gatineau. Eardley exchanged recipes on saving and using fats in the home. Two excellent papers were read, "Educating Rural Youth," and "A New Member." A sale of surprise boxes completed the afternoon. Wakefield heard a helpful paper on "Accidents in the Home." \$10 was voted to "Save the Children Fund". A contest, "Parts of the Body," gave a lighter touch to the programme. Wright branch also gave a donation to "Save the Children Fund." "Why belong to the W.I." was the subject of a paper. A humorous reading, "What Uncle Si thinks of the W.I." proved amusing. A birthday cake was served celebrating the 7th birthday of this branch.

Mississquoi. Cowansville. The convener of Education gave a short talk on the need of increasing one's vocabulary. A reading dealing with the proposed new Canadian Flag proved both interesting and amusing. St. Armand held a worthwhile panel discussion on "How can our W.I. make a better community." A couple of amusing articles were read making a well balanced programme.

Papineau. Lochaber has the usual report of many and varied activities. Toys were sent to the crippled children, cheer to shut-ins and clothing for the refugees. A helpful visit from Miss Walker was much enjoyed.

Pontiac. Bristol Busy Bees are planning a most commendable project, the furnishing of a room in their future new community hospital. A cooking utensil was presented to the school to assist in preparing hot lunches. "Publicity" was the subject of a paper. Clarendon staged an impromptu debate, "Resolved that our W.I. can make a better community". Needless to say the affirmative won. This branch is cooperating with Shawville and Stark's Corners in sponsoring a War Veterans' banquet when parchments and rugs will be presented to the guests of honour. "Thoughts for the New Year" was the subject of a paper by the convener of Education who also gave a comprehensive talk on the larger School Unit and its results in Alberta. Fort Coulonge featured a musical programme at their last meeting. A talk on the life of Beethoven and instrumental and vocal selections made a pleasing change which was much enjoyed. This branch also lost one of their oldest and most faithful members in the person of Mrs. J. G. Bryson, honorary president and for many years sec.-treas. Shawville has purchased a \$50 bond. A layette was presented to the community hospital and quilts are being made for the same purpose. A paper, "The Quebec Wife," proved of interest. Stark's Corners has sent in a request that our

Flag remain as it is. A layette has recently been sent overseas and \$9 given to help defray expenses of banquet for returned men. A quiz, musical selections and a reading "Happy New Year" made an entertaining programme. Wyman is another branch that had to forego its meeting due to illness.

Richmond. Cleveland exchanged valentines and heard a paper on St. Valentine. Handicrafts were displayed and descriptions given of how the articles were made. Melbourne Ridge discussed appeal to support measures to control the spread of V.D. Two quilts were given in and the "talent" apron received. Richmond Hill gave a gift to a new baby and held a holder contest. Shipton held a successful rummage and food sale. Spooner Pond is sending seeds to England. \$15 was voted the "Welcome Home" fund and a shower held for a bride. This branch also asks to have present flag retained. "Country Career Women" was the subject of a paper.

Rouville. Abbotsford realized \$13 from a very enjoyable social evening. Rev. K. N. Brueton was the guest speaker at their meeting taking as his subject "The Home and the Family."

Sherbrooke. Ascot donated \$5 to the Institute for the Blind and \$3 to "Save the Children" Fund. Plans were made for their annual meeting. Cherry River featured an apron sale, each member bringing one. Interesting items were read by the various conveners. A letter of thanks was also read from a sailor who had received one of their ditty bags.

Shefford. Granby Hill held an auction of articles donated by firms, \$8.35 was netted for general funds. Cheer was sent to the sick and used stamps to the Red Cross. In response to rollcall each member made a valentine with an original verse which caused much merriment. South Roxton plans an original scheme, a surprise parcel will be provided by each hostess in turn to be auctioned off at the meetings. A food and apron sale netted \$9.35 for the treasury.

Stanstead. Beebe is making a contribution to the "Save the Children" Fund. They hope to raise the \$96 necessary for keeping one child a year. A letter was read from a Greek Red Cross nurse who had received a garment donated by one of the members which had borne her name and address. The nurse gave a brief account of living conditions in that country. Dixville voted \$10 to "Save the Children" Fund. Reading and discussions on Health Week formed the programme. A stork shower was held for a member. Minton is giving \$2 to help the "Cocoa" fund at the school. A geography quiz with prizes was enjoyed. North Hatley also donated \$15 to "Cocoa" fund. This branch is discussing plans for some form of a local health service with the possibility of making the project a fitting war memorial. Stanstead North is sending seeds to Britain and a layette to Holland. Mrs. R. Blake of Newport, Vt. gave an instructive talk on the work of the Homemakers

Clubs in that state. Tomifobia made plans for the coming annual meeting.

(Too late to be classified) Abercorn in Brome county is discussing the Blue Cross Hospital Plan with prospects of new members. Cookshire in Compton Co. voted \$25 towards gifts for returned men. R. F. Cromwell, Advocate, gave a talk on Provincial Laws Concerning Women.

Do You Just Belong?

The following poem was read at the Q.W.I. Board meeting. It was sent in a letter of greeting from Miss Elizabeth Christmas to Mrs. Mortimer. The latter thought it was worth passing on.

Are you an active member
The kind that would be missed?
Or are you just contented
That your name is on the list?
Do you attend the meetings
And mingle with the flock?
Or do you stay at home
To criticize and knock?
Do you take an active part
To help the work along
Or are you satisfied to only just belong?
Do you ever go to visit
A member that is sick?
Or leave the work to just a few
And talk about the clique?
Think this over, member—
You know right from wrong.
Are you an active member
Or do you just belong?

Opposes Deporting Japanese-Canadians

While the United States had a battalion of Japanese-Americans fighting in Italy, Canada was uprooting Canadian-Japanese from British Columbia, confiscating their properties and persuading them to sign applications for "repatriation" to Japan — although some of them were Canadian-born and could not speak Japanese. It is not a fault that they thought sentimentally of Japan as the motherland just as the Canadian of Scottish or English or Irish descent thinks of his motherland. Nor is it a fault that these Canadians can never change their features and complexions to conform to the European pattern. Nor is it a fault that because they were different, because they were industrious, because they were not of European origin, they were unpopular in British Columbia.

Hon. Humphrey Mitchell, dominion minister of labor, has announced that those Japanese-Canadians who did not re-apply until after VJ-Day asking to remain in Canada, will have to go to Japan. Thus is the way opened for another war. Canada deprives of citizenship rights persons whose only offence is their colour. Canada sends away from her vast areas native-born citizens to a country that is teeming with people — a country that has burst open once and may well burst again.

—Rural Co-operator.

Eternal Vigilance vs. Clothes Moths

by F. O. Morrison

PRACTICALLY universally present in our dwellings, and equally at home in shack or palace, clothes moths destroy many millions of dollars worth of goods each year. Only eternal vigilance on our part can reduce this toll. Both the webbing and

case-making clothes moths, the two common species here, feed on fibres of animal origin, i.e., wool, hair, fur, feathers, etc. They cannot live on plant products with the exception of flour in which the occasional one will develop but they will bore into cotton, etc., to hide from the light or cut holes in such materials in order to get at suitable food covered by them. In so doing they leave their webs, cases, and faecal matter about creating the impression that they have been feeding on the plant material.

Sudden "outbreaks" of moth damage in the household can usually be explained by the existence of some overlooked breeding place such as an old stuffed woollen doll or teddybear stowed away in an open box in the attic, or a similarly forgotten stuffed animal or bird, fur collar, fur lined mitts, woollen cushion cover, fox tail or woollen socks, or untreated felt under carpets, hair in sound proofing filler, piano felts or an accumulation of dog and cat hair, etc., in cracks in the floor. In such "moth heavens" several generations of the little buff colored, light-shy moths may be reared. Unobserved they lay their eggs from which hatch the tiny caterpillars that do the damage, become full grown caterpillars, make their little cases of silk and chewed-up fibres and emerge as new moths ready to mate and lay eggs again. Presently the food supply is largely used up and the population has greatly increased. Then only does the odd larva crawl off looking for new food and the adults begin drifting about the house in the dark or semi-dark looking for some place to lay eggs. These wandering adults are observed by the housewife and run to earth but some of them escape her vigilance and deposit eggs on woollen clothing in closets or on woollen upholstery and the newly hatched larvae get in a little feeding before they are brushed off or picked up by the vacuum cleaner. Such patches of feeding constitute the first observable damage and search reveals more of it.

"An ounce of prevention . . ."

The best control is prevention. Store anything which might serve as suitable food in *tight* boxes or bags. Female moths sensing the food inside containers will deposit masses of eggs nearby and any crack wider than four-thousandths of an inch is big to let a newly hatched larva



enter. Since perfectly clean wool will not support the caterpillars it is well to be sure that stored articles have been washed or dry-cleaned before storage. As an added precaution, just in case the container is not tight, it is wise to add naphthalene or paradichlorobenzene flakes at the rate of one pound per hundred cubic feet and renew them at least yearly intervals.

Cracks in floors may be sprayed with household fly sprays, remembering, however, that such sprays kill only those insects which they actually strike and, with the exception of the residual DDT sprays, leave no toxic residue.

Mothproofing or treating with "fabric pest deterrents" leaves on the treated goods a chemical residue toxic to newly hatched larvae for long periods after treatment. This is especially desirable where woollen materials are to remain in closed up buildings such as summer homes, for any period of time. It has been said that one-third of the commercial preparations sold for this purpose at one time or another were 'lacking in mothproofing value'. Nevertheless there are certain treatments with proved value. In general, there are three types of mothproofing agents:

1. Dye-like materials used by the manufacturer and precipitated into the fibres in the dye bath. These are presumably effective indefinitely. Among the more recent and promising of these are "Demodex" and "Eulan CN".
2. Chemicals soluble in fluids used for dry-cleaning. The goods are soaked in solutions of these chemicals and the solvents allowed to evaporate leaving the toxin in the fabric. Further dry cleaning removes them. DDT is such a material. Treatments of this nature are best done by those especially equipped. However, heavy spraying with the now purchasable solutions of 5% DDT in water-white kerosene should have a definite mothproofing action. It must be remembered, of course, that baby's woollens or other materials which might be sucked or chewed by children or animals must not be treated with this poisonous material. Ordinary household fly sprays or moth sprays, unless specifically advertised for mothproofing, have no residual effect and only kill those insects which they strike at the time of application.
3. Chemicals soluble or suspensible in water. Goods may be immersed or sprayed with water solutions of these and allowed to dry without wringing so that the toxin is left in the goods. Being water soluble these chemicals are removed by washing. Commercial preparations for use in this way may contain arsenicals, fluorine compounds or the newer organic materials. The two former are highly poisonous and must be treated as such. A cheap but effective homemade preparation of this type can be made by mixing a tablespoonful of sodium

fluosilicate, and two teaspoonsful of some wetting agent such as Dreft or Duponol with one gallon of warm soft water. Sodium fluosilicate is poisonous if taken internally.

If an outbreak develops

In spite of our best efforts at prevention a heavy infestation will sometimes develop in a house. Such an outbreak may be treated by one or several of the following procedures:

1. Spraying infested articles with a household fly spray or moth spray. All insects struck by the spray will be killed.
2. Heating infested articles to 130 to 135 degrees Fahrenheit and holding them at that temperature for five or six hours. (It takes some time for heat to penetrate blankets, stuffed furniture, etc.) Small articles may be treated in ovens or warming closets. Rooms or whole houses may be closed up and heated to these temperatures in the summer, thus eliminating the problem for some time. Reinfestation occurs in time due to adults flying in from such natural outdoor breeding places as birds' nests.
3. Suddenly dropping the temperature to well below freezing. Infested articles placed outside on a cold winter day can be brought in the following day moth-free.
4. Fumigating with deadly gases. These require a closed chest, box or gas tight paper-lined barrel, for use on infected materials or if the whole house is to be treated it will have to be vacated during the treatment. Such dangerous gases as hydrogen cyanide and methyl bromide should only be used by experienced and licensed fumigators and according to the relations of the local authorities. Sometimes infested articles can be moved to a garage or other outbuilding for fumigation and some of the still poisonous but less dangerous gas mixtures used. Some such mixtures are now purchasable in Canada in liquid form, e.g., Chlorosol (ethylenedichloride and carbon tetrachloride), Carboxide (ethylene oxide and carbon dioxide) and Weevilcide (carbon disulphide with safening and warning gases added).
5. Fumigating with gases produced from the so-called "solid fumigants", naphthalene and paradichlorobenzene. These are the most practical fumigants for household use. They are equally effective though naphthalene is the cheaper and requires smaller amounts. Most housewives, however, prefer the less persistent and less objectionable odor of the paradichlorobenzene. It must be remembered, however, that these materials have little or no repellent effect on the moths, and that in order to kill any stage of the moth the air must be saturated with their fumes. The mere smell of these chemicals is not enough. Air saturated with them catches your breath and hurts your eyes. With these facts in mind it is at once evident that the flake form is superior to the mothball or block forms and that the gases can only reach useful concentrations in tightly sealed boxes or

rooms. Thus one pound per hundred cubic feet of space in a tight trunk, or five to ten pounds per thousand cubic feet on the floor and shelves of a sealed closet or room kept closed for several days and at a temperature of 70 degrees Fahrenheit should kill all moth stages present in furniture, blankets, etc., if they are not too tightly packed. Rugs may be fumigated by scattering over them adequate quantities of flakes then rolling the rugs tightly and wrapping them in tarpaulins or paper. Over-stuffed furniture may be similarly sprinkled and wrapped. To disinfect piano felts hang 1½ pounds of paradichlorobenzene in net bags (use several bags) inside the top of the piano, close it up and cover with blankets or a tarpaulin for a week. Since such high gas concentrations are necessary for success it is doubtful if the popular "para" blocks hung in open clothes closets have any value as insecticides though they may be valuable deodorants.

TOPWORKING . . . (Continued from page 2)

the limb can be grafted the following spring. Budding and grafting are relatively simple operations which can be done by the grower himself.

Past experience with winter injury of apple trees in this province would indicate that top-working offers the best insurance against loss of trees from winter injury. It is quite possible that if this practice had been adopted in the past, many of our trees in Quebec, which are now ruined by trunk and crotch injury, would be in good growing condition at the present time. This method has been used extensively for some time in various parts of Europe. Very favourable results with this method have been obtained in various parts of the United States. At the present time there are a considerable number of top-worked trees in the Province of Quebec which are just coming into bearing and the next test winter will demonstrate whether or not this method should be adopted as a standard practice under our conditions.



Top-worked by (1) grafting, (2) budding.

Crop Rotations for Better Potatoes

Organic matter and potato yields were fully discussed at a meeting of the North Mountain Certified Potato Growers' Association in Kentville. Dr. Geo. R. Smith, Provincial Chemist, Truro, and W. K. MacCulloch, Dominion Inspector of Certified Seed Potatoes, both stressed the importance of organic matter and agreed that crop rotations — three, four or five-year rotations — would meet this need. It is neither practical nor profitable to grow potatoes year after year on the same field. Based upon the experience of W. A. Fleming, a large grower of potatoes, Truro, N.S., Dr. Smith suggested a four-year rotation — potatoes, grain, hay and hay. The first crop of hay, usually clover was cured for live stock feed while the second-year hay was mowed and disced under and the field

seeded to fall rye in September. This rye would make considerable growth before freeze-up and again the following spring when it would be plowed down and the potatoes planted on top of the plowed-under rye. Like Dr. Smith, Mr. MacCulloch further stressed the importance of plowing under green growth, what he termed active organic matter, as an aid in growing clean potatoes. Tests at the Dominion Experimental Station at Kentville were quoted to confirm this statement. He recommended seeding fall rye at the rate of 2½ to 3 bushels per acre.

Leaflet on Bang's Disease

Dr. E. E. I. Hancock, Provincial Animal Pathologist for Nova Scotia is the author of a leaflet, "Bang's Disease of Cattle" which should be in every farm library or hanging in some convenient place where it can be read at leisure. There are only four pages of reading matter but they contain many useful tips as well as explanations of the causes and controls of the worst of all cattle diseases.

An important item for beekeepers in 1946 is the sugar supply. In the past, beekeepers have been allowed sufficient sugar for spring feeding and possibly many are of the opinion that permits for the purchase of sugar will be again

available. Beekeepers have been advised, however, that no sugar would be allowed for spring feeding in 1946, and until this ruling of the Sugar Controller is revised or rescinded beekeepers must depend on honey for their spring requirements.



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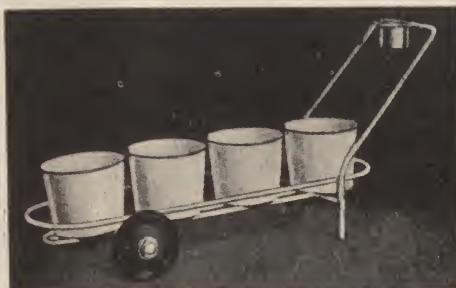
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Strippings

by Gordon W. Geddes

The bulletin on Timber Supplies sent out to the Forums, while printed for U.S. consideration, is well worth our discussion with the follow-up action that gives discussion its full value. In spite of the fact that we still have lots of trees in our section, there have been enormous in-roads made in our forest reserves by clean-cutting. Young growth with a low yield has been removed instead of saved and productive woodland degenerates to so-called pasture yielding only enough grass to supply stock the energy to wander around and collect it. Then the wind gets in and blows down what someone else is trying to save or floods and drought spoil some really productive land below the bald spot and the wound spreads like leprosy.

As far as legislation to control cutting on private property is concerned, there is some basis for the argument that this would be un-democratic. But neither is it democratic to slaughter woodland growth for a slight money gain and rob future generations of their opportunity. The man who does this is only one of the many trying to gain by the use of his democratic right to do as he pleases and avoiding his equally democratic responsibility to do what is best for the world now and in the future. Curbing his right to cut what should not be cut is no less democratic than delivering him from his responsibility to support his family and himself by granting family allowance and old age pensions.

Curiosity as to the reason for the difficulty in obtaining Canada Approved B-1 flour disclosed that it was mainly due to the indifference of the consumers or an actual dislike for it. Nutritionists have not changed their opinion as to its value nor has the Department of National Health and Welfare. While the latter does not compel its manufacture, they do commend the firms making it and fix definite standards which such flour must meet. From the experience of the Robin Hood Flour Mills, one of those trying to fill requests for it, the demand is very light



Dirty, thinned-out oil means incomplete lubrication of bearing surfaces, excessive wear and costly repairs—sooner or later. Dirty oil causes deposits of sludge, carbon and varnish in the engines of your truck and tractor, with resulting loss of power. Dirty oil not only "gums up" your engine, but its impurities give it corrosive properties—it may start to eat into metal surfaces. Then you're headed for trouble.

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and the housewife frequently fails to order a second bag of B-1 flour. They do not find it hard to manufacture though it is difficult to keep it uniform and they have had some spoilage because it sold so slowly. So apparently it is up to the consumer, if they want the flour on the market they will have to ask for it in sufficient numbers to keep it there. Of some interest to farmers is the fact that large-scale use of this flour would somewhat reduce the supply of mill-feeds. If people do not know they need the flour or know it but do not try to get it, it will finally disappear from the market.

The latter condition causes many losses. For example we lost a five-week-old pig for lack of iron and a neighbour lost more. They were all bought from a farmer who did not give iron. Generally, we try to give them some when we bring them home under such circumstances. This time we got too shiftless to attend to it until it was too late. They were doing so well that we hoped it might not be necessary. But the peculiar thing about it (as we knew for that matter) is that the better they do the more apt the iron deficiency is to affect them. This is the first one we actually lost by it and the verdict of the jury was death not due to ignorance but criminal negligence. Most farmers know what the fine is in such cases.

Another thing which many of us know we should do but don't is to get after the warbles. Several years ago we had one neighbour who did his own herd every spring. Of course, it did not do a lot of good because it needs wholesale attention over a wide area to be effective but he did his part. At least one member of a nearby Farm Forum has been trying to get this adopted as an action project by the local Forums. He wants them not only to treat their own cattle but to get the non-forum members to take it up as well. While he doesn't get any opposition, neither does he get any of the kind of support that puts such things over.

When this comes out we may all be

busy trying to ease the sugar shortage with a supply of real old maple. However, the ground hog saw his shadow and Easter comes late so the sugar season may too. In the meantime we can do a little to ease the timber and fuel shortage while we hope for a good sugar season.

Seed Catalogue

The winter storms and rages with

The fury of its strength;
But here I sit and gloating think
How tapering its length.

Within the firelight's ruddy glow,
I scoff at storm and cold,
And turn these pages gay with flame,
With purple, green, and gold.

And lawns are velvet green, tall spikes
Of colour bend and blow;
And vegetables without a can
Are one luxurious row.

The scent of new-mown grass and dew
Is fragrant through the frost;
And lily pools and pale-starred moss
Are here — and winter's lost.

—Lillian Collier Gray.

On Taxing Co-operatives

The following letter from one of our readers refers to the article "Little Red Hen" by Andrew Hebb which we reprinted from the *Rural Co-operator*.
To the Editor,

In your last issue, an article discussed the taxation of Co-operative Societies.

Because such a question is of highest public importance, it should be considered broadly and without hint of prejudice.

The principle which underlies all taxation is this. Because each individual receives service from his community, he owes service to that community.

Taxation is the contribution of service from citizens to their community. Consequently, when co-operatives or corporations become devices whereby

member individuals escape taxation, both should be taxed.

On the other hand, when co-operatives and corporations are associations of individuals who contribute an appropriate portion of their activities to public service, neither should be taxed.

The activities of no individual should be twice taxed. Citizens should be taxed once and personally. A worker should not be twice taxed because he chooses to work in partnership with others; each of us should be taxed as ourselves and not as members of a Co-operative Society or as Stockholders of a Corporation.

It is, in the end — and can only be — individuals who are taxed. Therefore, a tax system is wasteful and needlessly complicated which taxes, first, individuals and, second, taxes them also as members of an association.

Tax individuals once, and tax them as individuals. Their associations should not be taxed.

Any other arrangement cramps initiative, prevents production and imposes an endlessly exasperating waste of national effort in unnecessary officialdom and in accounting for every citizen.

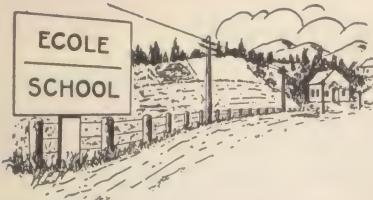
I am, yours sincerely,

Thomas L. Jarrott.

Record \$61,335 Paid for Bull

A Shorthorn bull — Supreme Champion Pittodri Upright — brought a world record price of \$61,335 for any breed of cattle when he was sold to Ralph L. Smith of Snyder, Mo.

Bidding for the animal, offered by R. Laidlaw Smith of Pitcaple, Aberdeenshire, started at \$4,230. At the heifer sale, the Missourian paid more than \$40,000 for a lot which included Champion Rosetta Alpha from the Bunchrew, Inverness, herd of D. P. MacGillivray.



LIVING AND LEARNING



Queen's Short Course as a Quebecer Saw It

by Murray Mason

For four years Queen's University at Kingston has been making good use of its facilities during the Christmas holiday season to render a very real service to the rural sections of Eastern Ontario by holding a four day short course on Co-operation and Rural Leadership. This year it was held from December 26th to December 29th inclusive, and was attended by a total of 92, most of them young men and women, and every one from the farm.

This year two members of Quebec Farm Forums attended the course, myself and John Heatlie Jr. of Lachute, and we were told it was the first time anyone had ever registered from this province. We were made very welcome indeed, and we found there an exceptionally fine and interested group of people.

In charge of the course were Wes Neelands, Ontario Secretary of Farm Radio Forum, and Miss K. Healey of the Department of Extension of Queen's University. Between them they had arranged a well balanced and very interesting program. Each half day a speaker took about an hour to cover his subject, following which the course broke up into groups to discuss some aspect of the topic. Then there would be a brief general assembly when group secretaries would report the findings their group had arrived at.

The purpose of the course was outlined by Ross Winter, the newly appointed director of adult education for Ontario, which was, he said, "The building of a better community, and to that end the people of the community must learn to work together faithfully and efficiently. Just as men from all walks of life were organized into efficient group action in the R.C.A.F. during the war, so in peace we must all work together to make a better and more harmonious community."

The theme for the conference was struck by Dr. R. C. Wallace, principal of Queen's University. He imparted a deep sense of moral responsibility to the group.

To be a great leader, Dr. Wallace said, it was necessary first to have knowledge — to know and understand not only one's regular business, but many things outside the daily routine. Show me a young man who is thinking and reading away beyond what is necessary for his day to day life, and I will show you a young man who will develop into a wise leader. To be a leader one must have courage — the physical courage, of which so much was seen during the war, and the courage which enables a man to speak his mind when he is sure he is right, no matter what his neighbour thinks.

Canada has come out of the war in a very favourable status among the nations, she must live up to that reputation. It is her duty and her privilege to play her part in eliminating war from the earth.

Dr. Wallace concluded with this thought, "It is better to fail in working for what will ultimately succeed than to succeed in what will ultimately fail."

Other speakers were: A. C. Savage, of the United Farmers Co-operative Company; David Smith of the Community Life Training Institute; V. L. Milburn of the Ontario Federation of Agriculture; and George Wilson, Fruit Branch, Ontario Department of Agriculture. These speakers all touched on highly important aspects of farm life, which were particularly revealing to visitors from another province.

A speaker of unusual interest was Paul Siren from the United Automobile Workers CIO. A convincing speaker, he gave us a good picture of the problems of industrial workers, as well as an outline of the workings and aims of union organization.

Saturday morning the closing address of the course "Farm Forum and Federation of Agriculture" was given by Ralph Staples, Secretary of National Farm Radio Forum and also president of the Co-operative Union of Canada. Mr. Staples outlined the setup of the Federation of Agriculture, and pointed out that through the Federation individual farmer is represented on a great many government committees and they have a definite voice in the affairs of our country. Probably one of the greatest needs of rural people at the present time is a national health plan, Mr. Staples told the course.

In order to develop the thinking ability of the farm people and to bring them together for group discussions and to reach definite conclusions on these, the best media we have in Canada are the Farm Forums. When we have seventy or eighty thousand people gathered together in groups across Canada discussing problems dealing with farm life on Monday evening each week we can see what a tremendous bearing this can have in the future on rural problems in Canada.

Next year we hope to have a similar short course at Macdonald College. If so, it will be a splendid investment if every Farm Forum in Quebec will send at least one representative for it is in this way that they can train community leaders for the future.

On the Film Front

by R. E. Taylor

There is a new deal approaching in the use of films.

During the last four years we have learned that films can be extremely valuable as sources of information and as a means of education. To be most effective they must deal with timely topics, and they must be followed by discussion, or some other technique of film utilization.

To date we have been unable to meet all the requirements for the best use of films. People have had little choice in the films they are to see. The National Film Board has made every effort to provide programs that are of interest, timely and valuable. They cannot always do this for every community across Canada.

When we have had appropriate films it was not always possible to arrange the proper publicity because, lack of information about the film. That is probably the greatest complaint from communities that are really trying to use films effectively. They want to know what to plan on, months in advance.

The present method of distribution of films by a travelling projectionist is inefficient and expensive. It is necessary until more communities get their own projectors. It is obviously impossible to serve every community by this method. Projectionist service will eventually be discontinued and communities will need their own projectors.

Immediate Steps

Plans have already been arranged to make film service available to more communities in the Eastern Townships. Two days have been left open on my circuit for showings in the vicinity of Brome and Mississquoi counties. Three days are open for showings in the vicinity of Stanstead, Compton, and Sherbrooke Counties. So far only Dunham and Bulwer have taken advantage of this. It is hoped that different communities will be served each month and that in this way the use of films will be more widespread.

The use of special films on topics of local interest is being encouraged. Community Schools especially have used films in relation to their program.

Future Plans

Film libraries to serve rural English speaking Quebec are in the planning stage. It is hoped that regional libraries may be set up to serve definite areas of the province. These libraries will be supported by the areas they serve but will exchange films among themselves, thus ensuring a wide variety of films at a minimum of cost. The National Film Board will supply films on extended loan in equal number to those purchased by the libraries.

With library service local organizations may obtain films to supplement their own programs. A Young Peoples' group may get films on Canada, when studying citizenship. The Women's Institute may use films on planning the home or handicrafts. The Agricultural Society may use a

film on the Warble Fly. The Farm Forum may obtain films related to their program. There are endless possibilities.

But most important of all, the Adult Education Service hopes to prepare study outlines on topics which can be used in conjunction with films. For instance it will be possible to plan a course on the United Nations. One of the large nations could be studied each month and the series culminated with a film on the United Nations Organization, its problems and its accomplishments. We will deal not only with the physical aspects of the country but with the people and their ideas. At the same time displays and literature could be circulated, adding greatly to the effectiveness of the films.

Another series might deal with Canada — province by province. Still another series could deal with the community. Films like "Lessons in Living", dealing with schools, libraries, community councils, etc.

With such a plan it will be much easier to plan to *use* films instead of just *showing* them. Film Circuits will find it possible to plan programs and arrange for speakers months in advance.

To get the greatest benefit from such a program each community needs a strong sponsoring agency. These people need to be thoroughly sold on the idea of using films; they need the initiative to contact speakers and develop discussion techniques; they need outside contacts for speakers and supplementary material.

Where there are Community Schools they are the logical agency for this purpose as they have already been doing an adult education job in the community. They have the necessary contacts to develop a worth while program. These courses could very well be made an extension of their program.

In other communities special film councils may be set up for this purpose or some local organization may be willing to assume responsibility.

It leaves freedom of choice of films. Organizations or community groups may choose films that are of local interest. It makes it possible to plan courses that will be of real interest and value. It permits greater publicity as it will be possible to plan the program a year in advance.

When projectionist service is discontinued communities will be in a position to continue to use films.

A program must meet the needs and interests of the people concerned. I think this one has every chance of doing so.

A Scotchman telegraphed a proposal of marriage to his sweetheart. After waiting an answer all day, he received an affirmative reply late at night.

"If I were you," said the operator, "I'd think twice before marrying a girl who kept me waiting for the answer so long."

"Na, no," replied the Scot. "The lass for me is the lass who waits for the night rates!"

What Farm Forums are Saying

Mabel, Argenteuil County. "We listened to the broadcast and would like to remark concerning vacant farms. We live in a very good farming district and we regret to say that in this area there are many vacant farms. Many have had to sell on account of lack of hired help, ill health due to overwork, etc. We think that there would cease to be a shortage of milk and its products if these farms were bought up, worked and stocked to capacity."

—*Mrs. James Black.* **North Georgetown, Chateauguay County.** "The policy of the family allowances is good, but we are inclined to think that too large a percentage of the money doesn't go for what it is intended, namely better food and clothing for the children. We suggest better plan would be for the government to distribute free coupons for food and clothing and other necessities. No doubt, it would entail more work but we would have the satisfaction of knowing that the money wasn't being squandered."

—*Archie McCaig.* **Upper Tullochgorum, Chateauguay County.** "Considerable criticism was heard on egg-grading. All agreed there was too much spread between the price the farmer receives at the grader and the price the same eggs are sold for at our local stores. The stores buy their eggs direct from the grader and the price they are selling them for is around .07c per dozen higher."

—*H. Grieg.* **Way's Mills, Stanstead County.** "In view of the world shortage of wheat, people starving and Britain and United States taking extreme measures to meet the crisis, the old sore point of farmers buying a bag of flour to get two bags

of bran or shorts becomes downright ridiculous. But it still goes merrily on."

—*Gordon W. Geddes.*

Stanbury, Mississquoi County. "We all think that co-operatives could and would control these profits, but we see no unnecessary steps eliminated by co-operatives. As one member stated, 'A pig cannot be put from the pen directly on to the platter.'"

—*Arnold Crosby.*

Kingsbury, Richmond County. "My grading of maple syrup was never done with colorimeter. Just knowing how to make the nice coloured syrup have the right flavour; and I claim that the commercial sugar buyers pay little attention to flavour, just colour which is unfair to the producer. On the other hand, 40% of maple sugar makers spoil their own product before it gets on the market, just by not doing a few things they have to do before syrup can be good."

—*H. A. Fowler.*

Fordyce Corner, Mississquoi County. "We are firmly convinced that quality pays and that all foods should be marked with the grade."

—*George A. David.*

Kinnear's Mills, Megantic County. "Marketing of beef cattle should be done through co-operatives with government inspectors for each district. The inspectors should be handled on the same basis as bank inspectors, new ones each year."

—*Allan Davidson.*

Harrington, Argenteuil County. "Someone is visiting us from the west (Manitoba). There they have co-op egg pools, poultry pools and grain pools. It shows people have more interest in producing only the best."

—*Mrs. John M. Dobbie.*

What Farm Forums are Asking

Wright, Gatineau County. "This Farm Forum wants the fast time back for six months commencing April or May next". What are the chances for this?

—*James Howard, Secretary.*

"The dominion-wide act establishing daylight saving as a wartime measure, as you know, is no longer in effect. This means that daylight saving is now a matter entirely for individual communities or areas to deal with themselves. If you wish to have daylight saving time as you indicate, it would be a matter for placing your views before whatever is your local authority in the matter, presumably the municipal council of your area. In other words, daylight saving is back on the same basis as it was before the war."

—*C. G. Groff, Secretary-Treasurer C.F.A.*

Upper Tullochgorum, Chateauguay County. "We would like to buy a film projector from War Assets. We thought a number of our groups might get together and buy one. Should we write directly to War Assets or would it be better for you to inquire for us?"

—*Mr. Huntley Grieg, Secretary.*

"There is quite a demand for such equipment, particularly by the Dominion Department of Labour for educa-

tional purposes. On different occasions we have made inquiries for Provincial Governments who have a No. 2 Priority, but have been unsuccessful. Possibly later on there may be some, but in the meantime, would suggest that you contact the trade and see what they would do for you."

—*Mr. L. C. Roy, War Assets Corporation.*

Libby Town, Stanstead. "If penicillin has been proven as a cure for mastitis, why doesn't the government make it compulsory to have all cattle treated as they become infected?"

—*Mrs. Alvin Smith, Secretary.*

"So far, mastitis has been considered an infectious rather than a contagious disease, and the government has not felt it within their jurisdiction to compel cattle owners to have this treatment done. Co-operation with your local veterinarian is at present the best way of combating the disease. You can have your herd tested and your veterinarian will outline recommended preventative measures and execute any necessary treatments. Consequently, constant effort and watchfulness on the part of the herd-owner and practitioner has, according to all reports, been very beneficial in clearing up this condition in a herd."

—*W. B. Durrell, Lecturer in Animal Pathology,
Macdonald College.*

(Continued on Inside Back Cover)



THE COLLEGE PAGE

The Macdonald Clan

Notes and news of staff members and former students

College Professor is Honored at Winnipeg



Prof. Lods is happier when he is looking over his grain plots than when he is guest of honour at a banquet, but he had to play the latter role in Winnipeg last month. The occasion was a dinner at which the members of the National Barley and Linseed Flax Committee were entertained by Messrs. Hallet & Carey, Ltd., grain merchants, on behalf of the barley trade.

The occasion marked the acceptance of the Montcalm variety as the best smooth-awn barley for malting that has yet appeared: and Montcalm barley was developed by Prof. Lods after years of patient trial and testing in the Agronomy Department plots at Macdonald College.

In 1922 Prof. Lods set out to improve barley by trying to produce a variety that would be high-yielding, stiff in straw and having a smooth awn. In addition, he attempted what was then considered impossible — to make it a good malting barley as well.

Until now, the Canadian standard malting barley has been O.A.C. 21: Montcalm's acceptance means that it is equal to or better than O.A.C. 21 and, in addition, it has

The College War Memorial

It is not always realized by the general public, and sometimes not by all the students, that the row of oak trees which surrounds the football field at Macdonald College is part of a memorial to the members of the Macdonald Clan who served in the war of 1914-18. The clock which hangs in the main hall, the bronze plaque on the wall beneath it and the Book of Remembrance in the library are all part of the memorial.

And now plans are being made to honour the students, graduates and staff members who served in the second world war. Two hundred and seventy-seven names of those who served have been reported. Thirty-five were killed, an undetermined number wounded, twenty-two were decorated.

No memorial building will be erected on the Macdonald College campus; the swimming pool and skating rink auditorium at McGill will be the only memorial of that

the great advantage of having smooth awns, and how great an advantage that is, only those who have harvested barley can properly appreciate.

Montcalm barley was developed from a cross between a smooth-awn and a selection of common Six-row. A segregate of this was crossed with a blue kernel selection from Manchuria and after a few generations a number of these were selected, one of which was Montcalm. Montcalm's family tree, therefore, is (Michigan 31604 x Common Six-rows) x Mandscheuri (1807 M.C.)

On behalf of the barley industry as a whole, Prof. Lods was presented with a gold watch and a formal message of congratulation was sent to the University for this outstanding achievement of a member of the staff.

In accepting the presentation, Prof. Lods, in characteristic fashion, pointed out that he looked upon it not so much as a mark of appreciation to him personally, but rather as a tribute to the work being done by all plant breeders throughout the country.

Prof. Lods has also developed several improved varieties of oats which are used extensively in Quebec and Eastern Canada generally. This portion of his work, from the standpoint of its economic value to the farmer, is of even greater importance than his achievements in barley breeding work.

type which will be erected by the University of which Macdonald College is a part.

Plans for Macdonald College are twofold. First is the creation of a fund that will make it possible to invite to the College each year, on or about Remembrance day, some person of eminence in world affairs to address the students and staff members at a formal gathering in the Assembly Hall. The subject of the address shall be such as to promote an intelligent understanding of world affairs by young Canadians and to inspire them to do their part toward the maintenance of freedom, tolerance and the improvement of human relationships everywhere.

Secondly, a Memorial Entrance to the library will be constructed which will be a dignified setting for the two Books of Remembrance and a constant reminder of Macdonald's war heroes.

Staff members and all past and present students will be invited to contribute to the fund, and any other donations from friends of the College will be gratefully accepted.

(Continued from page 31)

Bristol Corners, Pontiac County. "There was much discussion in our group regarding egg-grading stations to-night. Why is it there is such a spread between the producers selling price and the consumers buying price? We are receiving 28c a dozen for the highest grade eggs, and in the city they are selling at the stores at 42c per dozen."

—Mrs. Claude M. Young, Secretary.

"First, I wish to advise you that eggs are graded as being large, medium, pullet in size within the fresh grade, which is known as Grade A; second, all surplus eggs not needed for domestic consumption are being purchased by the Federal Government for British food needs at a price not less than 35½ cents for Grade A Large eggs.

"You might be interested in knowing what the actual prices for February 8th were, delivered in Montreal, for the various grades which are as follows:—

| | Large | Medium | Pullet |
|---------------------------|-------|--------|--------|
| To country shippers | 36 | 34 | 28 |
| To retailers | 37-39 | 35-37 | 31-33 |
| To consumers | 41-46 | 39-43 | 34-37 |

"From the above prices you will see that the price to country shippers should be 36 cents for large eggs and 28 cents for pullet eggs, whereas the consumer price for A large eggs averages about 42 cents, as you say, being 6 cents higher than paid to country shippers. This represents a legitimate spread of six to seven cents to allow for handling, grading, transportation and supplies, such as cases, fillers and flats needed for the product, in placing it in the retail outlets for purchase by the consumer.

"An official 'Egg and Poultry Market Report' may be had from the Marketing Service, Dominion Department of Agriculture, Ottawa, free on a weekly basis by merely writing and asking them to put your name on the list to receive it."

—W. A. Maw, Associate Professor of Poultry Husbandry,
Macdonald College.

Wright, Gatineau County. "We would like to know more about the Haggis Supper."

—Mrs. James Howard, Secretary.

"Scotch Haggis — Take the stomach of a sheep wash well, turn inside out and sprinkle with lime. Let it stand one hour, then scrape quickly with a knife, wash again, put in cold salted water over night. Take one pound of oatmeal, one pound of grated liver, one onion and a very little water, season well with pepper and salt. Put the mixture into bag with the wrong side out, leaving room for swelling. Sew it securely, plunge into boiling water, with a plate in the bottom of pot to prevent it from sticking. Boil three hours. Prick with a fork now and then to let out the air.

"Haggis Supper Menu — Haggis, Potatoes, Home made rolls, Oat Meal cookies, Short Bread, Tea, Milk."

—Mrs. W. R. Younie, Tullochgorum Farm Forum.

A farmer was economizing by putting green glasses on his cow and feeding her sawdust. Asked by a neighbor how it was working out, he replied: "It worked fine 'til she up and died."

International Farm Delegates

Announcement is made from the national office of the Canadian Federation of Agriculture, of the receipt of the official invitation to the Federation to participate in the forthcoming international conference of farm organizations, now scheduled for London, England, for ten days commencing May 21 next.

As the official voice of organized agriculture in Canada" said H. H. Hannam, President of the Canadian Federation, "the Federation will be duly represented at the conference, and preparations are now going forward to this end. The official invitation asks for six voting delegates, together with advisors. We have already selected our delegation."

The conference in London will be the culmination of negotiations and conferences which have been proceeding for almost a year, commencing with the visit of the British Farmers' Delegation to Canada last spring. All united nations which have national farm organizations, are invited to send voting delegates to the conference, each limited to six voting delegates, while those countries not having national farm organizations are invited to send not more than two observers each, both of whom should be farmers.

The delegation which will represent the Canadian Federation of Agriculture was selected at the recent annual convention at London, Ontario, and comprise the following:

H. H. Hannam, President; W. J. Parker, Winnipeg, and J. A. Marion, Montreal, vice-presidents; R. J. Scott, Belgrave, Ontario; J. H. Wesson, Regina; Alex Mercer, Vancouver; Ben Plumer, Calgary; W. H. McEwen, Moncton, N.B.; Percy French, Vernon, B.C.; R. S. Law, Winnipeg; R. H. M. Bailey, Edmonton; with C. G. Groff, Secretary of the Federation, as Secretary of the delegation.

The basis of deliberations at the conference in London will be the constitution for a permanent organization of primary producers, to be set up as an international federation of agriculture, with the main purpose of co-ordinating its activities effectively with those of the United Nations' food and agriculture organization.

At a recent meeting of the Nova Scotia Fertilizer Committee it was decided to extend soil testing program in the Province, in connection with which various farmers are co-operating with the Department of Agriculture in locating test plots on their farms.

These studies of soils and fertilizers are a co-ordinated effort between the Dominion Department of Agriculture and the Nova Scotia Department of Agriculture and Marketing to apply the results of soil surveys and fertilizer tests for the guidance of farmers in using fertilizer for various field crops.



THE WARTIME PRICES AND TRADE BOARD

FARMERS' BULLETIN

BUTTER RATION REDUCED TEMPORARILY

Hon. J. L. Ilsley, Minister of Finance, has announced that depleted stocks of butter, lower winter production and increased consumption have necessitated a cut in the butter ration during March and April from the present 6 ounces per person per week to 4 ounces per week. Instead of 3 coupons becoming valid every 4 weeks, there will be 1 coupon every 2 weeks. Coupons will become valid on March 7 and 21 and April 4 and 18. Quota users, except hospitals and such special users, must make their butter allocations for the first quarter last until April 30.

NO SUBSIDY ON IMPORTED PACKAGE BEES

The subsidy of 50 cents per pound, paid on imported package bees during 1944 and 1945, will not be paid on 1946 importations. Instead of this subsidy, which was to take care of increased production costs, there is to be an upward revision in the ceiling price for honey across Canada for the 1946 crop.

FARM SLAUGHTERING OF MEAT

Rationing in Canada is providing meat for export to Europe and Great Britain at the rate of approximately 150,000,000 additional pounds per year. In the three months following the re-imposition of meat rationing, meat consumption was reduced by 3.4 pounds per man, or an equivalent of 8½ percent over the year. Farmers have been largely responsible for making this national contribution possible, and they are asked for continued co-operation in observing the following regulations:

Meat ration coupons are to be collected by farmers from the ration books of members of farmers' households when meat slaughtered by themselves is consumed by themselves, as well as for meat they sell to neighbouring farmers and to licensed slaughterers. These coupons are to be sent to the local ration board by the tenth of each month.

One meat coupon must be turned in for every four pounds of meat consumed in the household but farmers need not turn in more than half the valid meat coupons in the household's ration books.

For the meat sold to neighbouring farmers, they must collect one ration coupon for each four pounds of meat sold, even if it means collecting coupons which have not yet been declared valid.

For meat sold to licensed slaughterers, they must not sell less than a quarter of beef or a side of pork, and they must collect a ration cheque or other ration documents for the full poundage of the meat, according to the wholesale meat coupon chart. Every licensed slaughterer has a chart in his possession.

MAPLE SYRUP SALES

There are no major changes in prices or in the method of

rationing maple syrup and maple sugar this year. Maple butter has been removed from the ration and will be coupon free the same as maple wax (la tire) and maple cream. Maximum prices per Imperial gallon for sales of maple syrup direct to consumers, in screw top metal containers, f.o.b. nearest shipping point are:

| | | |
|-------------------------|--------|---------------------------------|
| Ungraded syrup | \$2.40 | Canadian Medium Grade \$2.90 |
| Canada Dark Grade | \$2.65 | Canada Light Grade \$3.15 |

Prices will be 25c less if sold in bulk. If sold by grade, the grade must be clearly marked on container; otherwise price for ungraded syrup applies. Grading must be in accordance with the Maple Industry Act and the coulourimeter approved by Federal Department of Agriculture.

A premium of 25c per gallon over the "Canada Light" price has been fixed for syrup grading "Fancy".

MAPLE SUGAR:—Maximum selling prices per pound are:

| | |
|--|-----|
| Loose-packed in bags or other containers, commonly known as "farmer's run" | .22 |
| 1/2, 1, 2 or 4 lb. blocks | .35 |
| Maple wax (la tire), maple butter and maple cream | .35 |

COUPONS:—From March 1 to May 31, one sugar-preserve coupon covers the purchase of two quarts (80 fluid ounces) maple syrup, or 4 lbs. maple sugar. Maple butter, maple wax and maple cream are not rationed. After May 31 one sugar coupon will be good for 48 ounces of maple syrup.

A farmer may use his own maple products on his own premises without surrendering coupons. He must collect coupons for all direct sales of rationed maple products off the farm, and forward coupons to his Local Ration Board.

MAIL ORDERS:—Loose coupons must not be accepted with mail orders. In exchange for two preserve coupons a special voucher, covering purchase of one gallon of maple syrup, can be obtained from the Local Ration Board. Producers must not ship syrup unless this voucher accompanies order.

Vouchers received by producers may not be transferred, exchanged, negotiated or deposited and should be forwarded to Local Ration Boards by 10th of each month in postage-free Farmer's Envelope, RB-61, together with coupons and other valid ration documents from sales of maple syrup and maple sugar.

FARMERS' RATION COUPONS

| | Butter | Meat | Sugar-Preserves |
|----------------|--------|------|-----------------|
| March 7 | R-3 | 27 | \$2 |
| March 14 | — | 28 | — |
| March 21 | R-4 | 29 | \$3-\$4 |
| March 28 | — | 30 | — |

For further particulars of any of the above orders apply to the nearest office of the Wartime Prices and Trade Board